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Wireless Fever!

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Gay Parents Do Exist: Letting the Rabbit Out of the Hat

Debra Chasnoff

The television show *Postcards From Buster* and its accompanying free lesson plans are used by social studies and language arts teachers in elementary and middle schools across the country.[1] In this animated half-hour show, Buster Baxter, a rabbit, travels with his father, who is piloting a fictional rock band on its North American concert tour.[2] Each episode finds Buster discovering new cultures and communities. He videotapes documentary "postcards" (featuring real people) that he sends to Arthur and his other (animated) friends back home. Classroom activities based on the show strengthen students' geography and language skills, in addition to building awareness and appreciation of the many cultures in America.

Earlier this year I experienced déjà vu. PBS—the Public Broadcasting Service—decided not to distribute an episode in which Buster meets two children whose parents are lesbians. The same day, Secretary of Education Margaret Spelling sent PBS a letter demanding that the network not air it. "Many parents would not want their young children exposed to the lifestyles portrayed in the episode," she wrote. She also asked PBS to return federal funds used to make the episode, which was about maple sugaring in Vermont.[3]

WGBH/Boston

I flashed back to 1999, when a documentary I directed, *It's Elementary: Talking About Gay Issues in School*, was offered for broadcast through American Public Television. The film shows how and why schools are finding age-appropriate ways to address gay and lesbian issues in education: confronting rampant anti-gay name-calling, helping students to discuss gay-related topics as part of lessons on current events, and reading books that have characters with gay parents.

When *It's Elementary* was scheduled to air on public television, PBS received more letters of protest than for any other program in its history. And what was PBS's response? Said Robert Conrad, then president of the Corporation for Public Broadcasting: "This sounds to me like a program that helps parents do a better job of parenting, and that is the kind of thing that public broadcasting has a right to do."

It's Elementary went on to air on more than 300 public television stations around the country, inspiring thousands of school communities to be more active in confronting prejudice and intolerance.

No such courage this time. Explaining why the network yanked the recent episode of *Buster*, Lea Sloan, vice president of media relations at PBS, said, "We wanted to make sure that parents had an opportunity to introduce this subject to their children in their own time."

It made me wonder what kind of world Margaret Spellings and the executives at PBS are living in. It seems they think that there is one world where all the families and children live and somewhere over

in this issue

On the Cover
A member of the radio listening audience in 1922.
Library of Congress

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there, across the border, a separate world where all of those gay people live. Parents, they would argue (who must all be straight) should be the ones to decide if and when to let their children have a controlled peek at those inhabitants on the other side of that imaginary line.

At this point in American history, such a position is not only ridiculous, it is insulting and highly irresponsible.

The truth is that today, millions of children have a parent, uncle, aunt, cousin, sibling or grandparent who is gay. Thousands of dedicated teachers, school administrators and coaches are gays or lesbians. What kind of message are we sending to our youth when we say that their loved ones and trusted mentors aren't safe for children to meet on TV? That, in fact, is where the real potential danger lies. Think about the harm we are causing for all of those children when we say, "Sorry, your family has been censored today."

Even if we keep Buster the bunny from visiting children whose parents are gay, we can't put the rabbit back in the hat. Gay people and gay issues are part of everyone's world now, including that of our children. Our only choice is whether we step up and give kids the skills and opportunities to treat everyone respectfully, or whether we try to perpetuate a false silence around the real lives of millions of Americans, a silence that is damaging to all young people.

What is the real fear about allowing Buster to visit a sugar farm run by a two-mom household? That all the kids watching will decide that their future partner will be someone of the same sex? That parents will suddenly have to have to discuss sexual practices with their young children? In fact, Buster does not need (or want) to know how those parents make love to each other any more than Buster needs to know what goes on behind closed doors when he visits a home with a mom and dad. Those are adult concerns, not young children's.

I have seen this played out in hundreds of classrooms when teachers show students *That's a Family!*, another film we produced about growing up in different kinds of family structures. When the part of the film comes on where kids talk about having two moms or two dads, children in the classrooms do not stop the video and say, "Hey, let's talk about gay sex!"

Instead they learn that kids with gay parents go bowling and have birthday parties and have a family life just like any other kid does. Their worlds broaden for a moment to take in the fact that families do—whether some adults like it or not—come in all different configurations. And the kids who are growing up with adopted parents, parents of different races, single parents, divorced parents, guardians, and yes, gay or lesbian parents, breathe a sigh of relief that their reality, also, can be welcome in the classroom.

Teacher after teacher has reported that after they show *That's a Family!* their students who live in any kind of "different" family structure suddenly show up. "They finally feel like they belong in our class" one fourth-grade teacher told me. "We use it as part of our sixth grade orientation," one principal explained. "It sets the tone that everyone, regardless of what is going on at home, is part of our community."

Despite all the evidence to the contrary, as a culture we still hold tightly to the romantic notion that "family" means mom and dad, married to each other, the same race (white) with two biological offspring, a dog and a cat. If respected adults (schools, parents, PBS programmers) allow depictions of families that don't fit that picture, then somehow (the fear continues) we are encouraging children to go out and create those kind of families instead of the "real," "legitimate" kind. In fact, when we give young people the opportunity to see that there are all kinds of families, we are helping to lay the foundation for them to understand and respect differences of all kinds, a skill that has never been more needed.

Notes

1. WGBH's "Guide For English Language Learners," includes a lesson plan to complement each episode of *Postcards from Buster*. The Teacher's Guide, designed for students in grades 2-4, supports and extends the language learning opportunities in *Postcards from Buster*, offering strategies to use before, during, and after viewing each episode. pbskids.org/buster/parentsteachers/lessons.html.
2. Arthur, Buster, and the other Marc Brown characters are trademarks of Marc Brown, ©2005 WGBH.
3. A PBS spokesperson said that the Department of Education's objections were not a factor in the decision not to distribute the episode.

Debra Chasnoff, an Academy-award winning documentary filmmaker, co-founded the Respect for All Project, www.respectforall.org, which provides media, curriculum, and training to help young people, and the adults who guide their development, understand diversity.

"Traditional" Family is Changing As revealed by Census 2000 Data

Census 2000 figures reflect significant changes in the makeup of the "average" American household.

For the first time in America's history, fewer than 25 percent of all American households are made up of married couples with children. Increasing by some 72 percent since 1990, the number of unmarried persons living together as couples jumped to 5.47 million in 2000 from 3.19 million in 1990.

Families maintained by women with no husband present increased three times as fast as married-couple families: 21 percent versus 7 percent. ...

Census Bureau analysts say several factors are contributing to the change in the traditional nuclear family, such as couples waiting longer to have children, a growing number of single parent families, and a constantly increasing divorce rate.

Source

Excerpt from an article by Robert Longley at usgovinfo.about.com/library/weekly/aa051601a.htm; see also Census 2000 Profile, www.census.gov.

Middle Level Learning 23, pp. M4-M8

Radio Days in the Classroom

Dan Schuchat

What social studies project challenges students with interdisciplinary learning, engages their various abilities and learning styles, offers them the opportunity for collaborative work—and encourages them to speak in strange voices? The answer is an eighth grade radio drama project. For most of the month of March 2004, the entire eighth grade at Edgemont Junior/Senior High School in Scarsdale, New York, was transported back to the early days of radio. They learned about the history of radio and how it changed our society, studied some of the most famous examples of radio drama, built their own crystal radios, visited the Museum of Television and Radio in New York City, and finally wrote and recorded their own radio plays.[1] The project was aligned with standard 1 of the New York State curriculum, "students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York."[2] Studying the early days of radio did it all.

A Collaborative Effort

My fellow social studies teacher Tim Hoss and I led the radio drama project. We reasoned that understanding the impact of radio on American society could help students (1) better understand our social studies unit on America in the twenties and thirties and (2) think about the important role that technology plays in our lives, then and now. Social studies topics (we call them "Essential Questions") from the unit that students and teachers strove to answer included:

- ➜ What were some of the economic, political, and social changes of the 1920s?
- ➜ In what ways did African American culture thrive during the 1920s in New York City?
- ➜ What new things did the radio provide to listeners in distant towns and farms?
- ➜ How did city life change in the United States during the 1920s?
- ➜ How did life in the rural countryside change during this period?
- ➜ Why did some Americans resist the social changes of the 1920s?

The history of early radio touches upon all these essential questions, providing an entre for middle school students into a complex era.

We began by introducing our eighth graders to radio plays simultaneously in English and social studies classes. In English, students read old scripts to learn how the different elements of a radio play (speech, music, background noises, and special effects) blend to create a satisfying listening experience. They explored distinguishing characteristics of literary genres: mystery, science fiction, comedy and western genres, as well as the parallels between radio theatre and short stories. During the same week in social studies class, eighth graders listened to and analyzed Orson Welles' famous broadcast of War of the Worlds.[3] In discussing this event, students had to clarify the difference between fact and fiction: What is the difference between news and entertainment? And how do we know which one we are listening to?

A Big Fright

On Halloween eve 1938, Welles broadcast a dramatization of an H.G. Wells novel, *War of the Worlds*, about a Martian invasion. His introduction to the program stated that it was a play, but many members of the listening audience who tuned in late to the program mistook the broadcast for actual news. Panic spread throughout parts of the nation. Police and fire stations were overwhelmed with phone calls.

I played a few minutes of Welles's radio performance (now available on CD), which was recorded as it was broadcast.[4] Only a few students were fooled into thinking it was anything more than a dramatization. Students did appreciate the story and the skillful delivery by the actors.

Reading about the early days of the home "wireless" revealed that social changes that followed the advent of the radio were in many ways as important as those resulting from the industrial revolution. People received news quickly from around the world. Government leaders could get their words directly to the citizens. Commentators' opinions could influence the public's perception of an event. Radio ushered in an information age that included not just news of real events, but fiction, entertainment of all sorts, and mass marketing.

Many students found parallels between people's reaction to the *War of the Worlds* broadcast and the rise of fascism in Europe. For example, in both cases, the public seemed easily motivated by fear. We also discussed the parallels between the age of radio and the current Internet revolution, such as new ways of marketing goods and services, the use of each medium in political campaigns, and the speed at which local and world news is disseminated. Classes noted the differences and similarities between radio and other methods of communication, paying particular attention to television and the internet. Students remarked that images play a crucial role in television. They noted that much of what they see and hear on the internet is poorly referenced. These discussions challenged students to think about how the relationship between broadcasting corporations and listeners has evolved.

Social Studies

During the 1920s and 30s, commercial radio swept across America and the world, much like the internet is sweeping across

our world today (Handout 1). The public's excitement over radio technology—the free, instantaneous communication and the possibilities for entertainment and news—could be called "wireless fever."[5] As our classroom radio project progressed, we challenged students to discover how radio brought social changes in entertainment, the arts, politics, business, family life, and government (Handout 2).

Like the internet, radio made the transmission and dispersion of news and entertainment more rapid. Now, people living in rural areas were seduced by the latest sounds from the big cities. Radio spread popular music as well as opera and classical music throughout the country. The contributions of African American jazz and blues artists blossomed on the radio, reaching a worldwide audience.

The entire citizenry could hear the speeches of political candidates seeking their vote and government officials as they sought support for a policy or strove to reassure the nation during a time of crisis. Propagandists made use of the fledgling medium to spread intolerance. Marketing agents found the radio commercial to be a lucrative medium. In short, the radio made America "smaller" by spreading information and culture to everyone. Many of my students were only vaguely aware that radio ever experienced a "Golden Age" (considered by many writers to be the 1920s through the 40s), since radio theatre has been displaced in the main by movies and television.

This history provides a useful perspective for understanding some of the transformations our society is undergoing today.[6] Cell phones, wireless PDAs, personal computers and the Internet deliver information instantaneously across the world. Young adults send each other instant message and share moments of their lives by writing journalistically on internet blogs. They share photos, sports scores, games, and hobbies by internet. Suddenly (it seems) young people are able to share copyrighted songs by e-mail and find, with a quick internet query, a prewritten school assignment ("choose your grade level"). Such abilities in the hands of young computer users raises a host of interesting moral and legal questions, some of which reflect the earlier challenges imposed on society by the arrival of radios in the living rooms and kitchens of America.

Science and Society

In science class, eighth graders learned about radio waves by studying the electromagnetic spectrum, radio waves, transformers, antennas, and receivers. Terms such as AM (amplitude modulation) and FM (frequency modulation) were defined and discussed.

In technology class, students researched the key inventors, such as Faraday, Hertz, Fleming, Tesla and Fessenden, whose important discoveries led to the development of the radio.[7] They also investigated the technologies that became the foundation of radio, such as the propagation of electromagnetic waves, the vacuum tube, and AM transmission. As a culminating activity, students built a crystal AM radio that received a limited number of stations without batteries.[8]

Writing a Script

The heart of the radio drama project was for students to pick partners interested in the same genre and form small groups to write the script of a radio play.[9] The topics of the plays in English class can include fiction (mysteries, westerns, soap operas, and comedies) and, in social studies class, historical fiction (interviews with historic individuals, news reports, debates, and obituaries, which are in fact brief biographies). Within each group, some students chose to be scriptwriters, actors, or sound effect specialists. All students in each team were responsible for creating the script and researching the related historical topic. While groups collaborated under the watchful gaze of their English teachers, they were encouraged to settle disagreements themselves. Every group member learned many important lessons about collaboration throughout this creative process.

The script was the central work by which we evaluated student learning. We required that each historical fiction contain at least twelve factual, historical statements and be true in tone overall to the historical period of the drama. For example, a 1930 Dust Bowl weather report from Oklahoma could describe the poor visibility (caused by dry topsoil being blown about, explains the narrator) and mention the effects of the drought on families (interview parents) and the local economy (interview shop owner; drop in to hear an auctioneer at a farm foreclosure). The narrator could talk about evicted families leaving by train (whistle) and pickup truck (bike horn) for California. Being located in tornado alley, the radio station interrupts its broadcast for an urgent warning when a twister (vacuum cleaner) appears on the near horizon.

Preparing a Performance

During rehearsals, students brought the scripts to life by adding background sounds, music, and special effects. One member of a western group played his guitar to accompany the play. Another group used a keyboard. Often, students made do by adding vocal effects or approximating sounds with everyday items. As they continued to work closely with their English teachers to rewrite the radio plays, students realized that what might read well on paper does not necessarily sound realistic or natural when read aloud. They were challenged to convey to the audience a sense of place and mood, as well as plot. I read drafts for historical accuracy and to eliminate anachronisms. (For example, in the 1910, one initiated a call on a phone by speaking with an operator; rotary dials were not generally available until 1920; and push button phones were first manufactured in the 1960s).[10]

Early Radio in the United States

Guglielmo Marconi, an Italian inventor, brought electromagnetic waves out of the laboratory and into the world. He began with short-distance broadcasts in his own back yard. In September, 1899, he astounded the world by telegraphing the results of the America's Cup yacht races from a ship at sea to a land-based station in New York. By the end of 1901, Marconi had founded his own commercial wireless company and broadcast the first transatlantic signal.


Guglielmo Marconi

For a time, wireless broadcasts were limited to coded dots and dashes. But on December 24, 1906, Canadian-born physicist Reginald Fessenden changed that by sending the first long-distance transmission of human voice and music from his station at Brant Rock, Massachusetts. His AM signal was received as far away as Norfolk, Virginia. The stage for commercial voice and music broadcasts was set.

A steady stream of inventions (only a few of which are mentioned here) pushed radio forward. In 1907, American inventor Lee De Forest introduced his patented Audion signal detector—which allowed radio frequency signals to be amplified dramatically. Another American inventor, Edwin Armstrong, made key discoveries during World War I, in which radio communications played an important role. Armstrong discovered how FM broadcasts could be produced in 1933. FM provided a clearer broadcast signal than AM, but RCA's top executive, David Sarnoff, was pushing for the development of television. Sarnoff withheld FM from the public for more than a decade.

Still, the public demand for radio grew exponentially. Entertainment broadcasting began in about 1910, and included De Forest's own program, which he aired from the Metropolitan Opera House in New York City. An entertainment broadcasting venture based in a room over a garage in Wilkinsburg, Pennsylvania, became the first commercial radio station, KDKA, in 1920. Station WWJ, in Detroit, Michigan, began commercial broadcasting in the same year. November 2, 1920 was also the first time that national election results were broadcast by radio: Warren G. Harding had won the presidency.

KDKA, the first commercial radio station

The period between the late 1920s and the early 1950s is considered the Golden Age of Radio, in which comedies, dramas, variety shows, game shows, boxing matches, baseball games, and popular music shows drew millions of listeners across America. Religious leaders such as Father Coughlin preached to huge audiences over "the wireless." News broadcasts gripped the attention of the country. President Franklin Delano Roosevelt pioneered radio as a medium for elected officials to inform—and influence the opinions of—their constituents.

Radio broadcast corporations became giants. Among the early proponents of entertainment broadcasting was RCA's Sarnoff, who used radio to create corporate empires at RCA and NBC. But in the 1950s, with the introduction of television, radio's Golden Age faded. Still, it remained a pop-culture force. Technical developments like car radios, stereophonic broadcasting, hand-held radios, and internet streaming helped the medium of radio keep up with the times.

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The Social Studies of Radio's Golden Age

Any one of these questions would make a great topic for further study.

I CULTURE
- How did American culture change to accommodate this new technology—the home radio?
- What aspects of family life changed as the popularity of radio entertainment grew?

II TIME, CONTINUITY, AND CHANGE
- Why were the 1920s through the 40s called The Golden Age of Radio?
- What makes for a "golden age"?

III PEOPLE, PLACES, AND ENVIRONMENTS
- Where were U.S. radio signaling centers located in 1912. Why? (See the Back Page)
- How did hobbyists and Ham radio operators affect the growth of this new medium?
- How did "the wireless" affect the lives of rural families? Of city dwellers?

IV INDIVIDUAL DEVELOPMENT AND IDENTITY
- How did radio affect the ways that people learn, perceive, and grow? How did radio help people meet their basic needs?
- Who were the key inventors of radio and what were their life stories?

V INDIVIDUALS, GROUPS, AND INSTITUTIONS
- How did hobbyists and Ham radio operators affect the growth of "radio fever"?
- What institutions had to adapt to the new technology of radio?
- What wholly new groups or institutions were formed that related to radio?

VI POWER, AUTHORITY, AND GOVERNANCE
- What were some of the early problems related to the limited resource of radio "bandwidth"? (See the Back Page)
- What problems of governance arose in the wake of radio broadcasts into people's homes?
- How did agencies of government use this new technology?
- How did the profession of journalism grow in response to radio?
- How did the broadcast corporations evolve?

VII PRODUCTION, DISTRIBUTION, AND CONSUMPTION
- How did radio "commercials" affect consumer behavior?
- What were some of the new goods and services that arose from radio technology?
- What programming choices did consumers (listeners) have in 1920? In 1940?

VIII SCIENCE, TECHNOLOGY, AND SOCIETY
- What consequences of radio technology were unanticipated? (See the Back Page)
- How did society cope with these changes?
- What similar changes might be occurring in science and society today?

IX GLOBAL CONNECTIONS
- How did radio affect relations between governments? Between individual citizens living in different countries?

X CIVIC IDEALS AND PRACTICES
- How did radio news and other programming change civic life and politics?
- How were basic values found within the U.S. Constitution brought to bear on the use of this new technology?

Questions inspired by National Council for the Social Studies, *Expectations of Excellence: Curriculum Standards for Social Studies.* Washington, DC, 1994.

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Groups rehearsed their plays for almost an entire week. To make the experience more meaningful and less harried, we changed the schedule on two days to allow for an uninterrupted 2½-hour block of time for the project, a change made possible by good-natured cooperation among the eighth grade teachers. The total time for the unit was approximately two weeks.

In the Studio

Living near Manhattan, we were able to take a field trip to the Museum of Television and Radio, where students listened to radio plays, experimented with sound effects machines, and practiced reading aloud before a microphone. Finally, the big day arrived for studio recording. Bringing little more than their scripts, a couple of musical instruments and a great deal of nerve, the eighth graders returned to the Museum's two studios and recorded their radio plays live-to-tape. Despite the fact that these young actors had only a few minutes to familiarize themselves with the Museum's "real" sound effects (many left over from NBC Studios), the recording sessions were practically flawless. The day of the recording was particularly exciting because this was the first time that many students got the opportunity to hear some of their peers perform.

While recording in the museum's studios was a wonderful experience for the students, this resource is not vital to the success of this project. Recordings could be made on a tape recorder in a classroom or stairwell (where the echo is great). Also, radio plays can be performed in front of a live audience of younger students.

To celebrate the completion of the project, we are planning an Edgemont Radio Academy Awards ceremony, possibly with CDs of the students' creative "radio broadcasts." Memories of participating in this exciting and creative project will forever be recorded in the minds of Edgemont's eighth grade class, just as their creativity, hard work, and enthusiasm have been recorded for posterity as radio plays "from the past."

Notes

1. Our eighth grade team of teachers had the assistance of Jane Gertler, Director of Curriculum and Assessment, Edgemont School District. Parents in Support of the Arts (PISA) and then principal William Smith enhanced the project with a generous gift to help pay for field trips to the Museum of Television and Radio in Manhattan, www.mtr.org.
2. New York State Learning Standards, www.emsc.nysed.gov/ciai/socst/ssls.html.
3. Potter, Lee Ann, "The War of the Words: Letters to the FCC Regarding Orson Welles's 1938 Broadcast," *Social Education* 44, no. 4 (May/June 2002): 198-203.
4. Orson Welles, *War Of The Worlds: The 1938 Mercury Theatre Of The Air Radio Broadcast* (New York: Radio Spirits, 2000), $29.99 CD.
5. See Paul Joseph Bourbin's review of *Inventing American Broadcasting 1899-1922* by Susan J. Douglas (Baltimore, MD: Johns Hopkins University Press 2001), www.antiqueradio.com/bookrev2_09-99.html.
6. The internet has sparked a resurgence of interest in vintage radio. Many websites exist as virtual meeting places for vintage radio enthusiasts. Radio scripts are easily downloaded (www.genericradio.com; www.otr.com). Of course, contemporary radio still offers modern examples of radio shows in the spirit of vintage radio, with Garrison Keillor's weekly broadcast from the mythical shores of Lake Wobegon being one of the best known (prairiehome.publicradio.org.)
7. Hans Christian Oersted's Experiment, www.phas.ucalgary.ca/physlets/oersted.htm; Nikola Tesla, www.pbs.org/tesla/ll/ll_whoradio.html; Heinrich Hertz, www.sparkmuseum.com/ BOOK_HERTZ.HTM.
8. Radio Transmission Activity, www.pbs.org/wgbh/aso/tryit/radio/.
9. A good source that includes two CDs of vintage radio programs is a book edited by Ronald Lackman, *This Was Radio* (New York: Great American Audio Corp., 2000).
10. Sarah Gearhart, *The Telephone* (Turning Point Inventions) (New York: Atheneum, 1999).

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Short Answers To Discussion Questions On Page 16.

1. Radio interference occurred as more and more radio operators sent their messages out.
2. The U.S. Navy, an early user of wireless communication, wanted control over the medium.
3. An Act to Regulate Radio Communication passed on August 13, 1912.
4. The choice of headquarters (and layout of the districts) reflected the early emphasis on radio's use by ships.
5. Partially effective, but the volume of radio traffic kept increasing. Fourteen years later, there was a breakdown of the system.

Read more at Thomas H. White, *Building the Broadcast Band*, earlyradiohistory.us/buildbcb.htm#tech.

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Design a Book: A Quest in Ancient Egypt

David Cooper

The clicking old film projector almost lulls you to sleep. Mr. Cooper, your social studies teacher, has decided, for some odd reason, to show an old educational film made in the 1950s. The topic is ancient Egypt. Suddenly, your best friend, Rhana, gets up from her seat and jumps "into" the screen. Poof! You can't believe your eyes!

"I have to save her," you shout, and jump into the screen after her.

You fall a short distance and land upon ... sand. Lots of warm sand. You are in a desert. Nobody is in sight, but you see large pyramids to the left and a river to the right. Where is Rhana? Which way should you go?

If you choose to go to the pyramids, turn to page 5.
If you would rather search along the river, turn to page 7.

So begins another quest in ancient Egypt, a classroom project that combines creative writing, basic book design, and social studies content. During this project, my seventh grade students (1) research a variety of ancient Egyptian archaeological sites while reviewing course material from a unit of study on ancient Egypt, (2) practice project management skills needed to complete an assignment that extends over several days, and (3) learn some basics about the craft of book making. Students who are ready for an additional challenge can (4) design their book as an "interactive" adventure, as suggested in the opening paragraph above.

This article gives an overview of the project and discusses the pedagogy of guiding middle school students through its various phases. When first describing the book project, pass around a model or a sample of a student-made book, with the staples removed, so students can observe how the sheets of paper are folded and stacked to make a coherent whole. Many of the step-by-step instructions for doing this project are contained in Handouts 1 through 4. For some students, it may be necessary to read aloud from a handout, pausing for questions and discussion. The adventure book option (Handout 5) is described in more detail toward the end of the article.

1. Researching Archaeological Sites

Searching for a hidden tomb or long-lost civic center, deciphering hieroglyphs found on a wall, or reconstructing a city from crumbled sandstone—these are not simple, one-dimensional tasks. A working archaeologist uses interdisciplinary knowledge to guide her intuition and inform her deductions. Writing creatively about specific archaeological digs in Egypt, while basing their descriptions on fact, is a great way for students to apply the knowledge they acquire from a unit of study about ancient Egypt.

I provide a "research center" on the topic of ancient Egyptian archaeological sites. This center is a table supplied with books and magazines, like *National Geographic*, that my young researchers can use as sources of information. Handout 1 lists some books that could be included in the center. I've also listed several of the major archaeological sites and guiding questions to help students take thorough notes and make quick sketches. (The illustrations in the student-made books should be as accurate as possible, so sketches should be part of students' note taking).

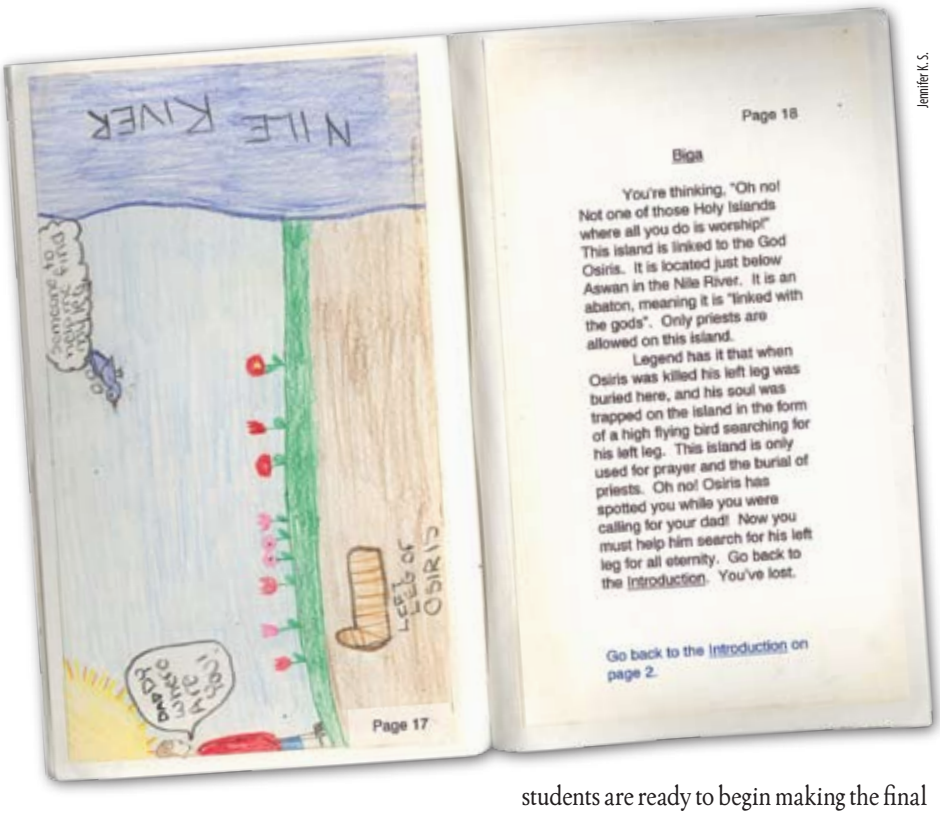
2. Planning a Book

To begin, I talk through the project in some detail. I discuss how the project will be run over several weeks. I provide a checklist for planning and production (Handout 2) so students can monitor their progress and complete all of the required tasks in time. I also pass out an example of a student-made book so everyone can see what the end result looks like. Handout 2 also includes point scores for the different parts of the project. This gives students an idea of how I will assess their work. The quality of their research efforts (providing accurate information about ancient Egypt and explaining the importance of various archaeological sites) accounts for the majority of points (with 100 points as the maximum).

The seventh-grade curriculum in our district allows me to devote 15 hours (fifteen full class periods over three weeks) to this project: one week to research historical information for the content of the book, a second week to plan and draft it, and a third week to produce the final version. But a book project could just as well serve as an ongoing activity throughout a unit of study. For example, the last 15 minutes of social studies class (say, three times a week) could be set aside for project work during a unit of study on ancient Egypt. A long-range project like making a book helps give relevance and hands-on excitement to what might otherwise seem a purely academic unit.

3. Crafting a Book

Students have probably made "booklets" before, in which individual sheets of paper are simply stapled together along one edge. The challenge here is different. In this project, students fold and collate larger pieces of paper to build their book. This means that students must think about the imposition, which is the arrangement of a book's pages on larger sheets of paper so that, when folded and bound, the pages are in proper order.



Jennifer K. S.

Handout 3 will help guide students through the mechanics of assembling a book. Folding one large sheet of cardboard or colored stock creates front and back covers of the book. Six legal-size (8.5 x 14 inch) sheets of paper, folded in half, create a book of twelve pages. Pagination, which is the act of numbering the interior pages, begins with the title page. The story is then written on odd numbered pages, and accompanying illustrations are drawn on the even ones (Handout 3). Thus, when the reader opens the book at any point, the picture is on the left and the relevant text is on the right (see above). Finally, the back cover (outside and inside) is left blank so that classmates can write positive comments to one another at the conclusion of the project.

Students should make quick pencil sketches for their rough drafts, spending most of their artistic time on the final drawings. Every couple of days, tell students to pause and proofread each other's work. Ask them to "pay as much attention to the work in front of you as if it were your own," skimming it once to get the flow of the book, and then rereading carefully and marking (in pencil) points that need correction or clarification. Draft books are returned to their authors, at which point suggestions for revisions and corrections can be discussed. When any bugs have been worked out of their stories, students are ready to begin making the final product by inking in the words and detailing and coloring the illustrations.

4. Designing an Adventure

Students who would enjoy an even greater challenge can try their hands at designing their books as "interactive" adventures. The "choose your own adventure" genre of juvenile fiction was a forerunner of interactive text-based computer games. These stories were written in the second person ("You are standing before two doors in a cavern..."), placing the reader in the shoes of the main character. The basic form is this: If the reader chooses option "A," then he or she is instructed to turn to a particular page. If the reader chooses "B," he or she turns to a different page. The story then continues in a unique way based on the reader's choice. Some students may not be familiar with "choose your own adventure" stories, so I describe the genre, read aloud a bit of an adventure (the opening paragraph of this article, for example), and make available several copies of a commercially published adventure book for students to peruse.

On either the title page or first page of an adventure book, there should be a brief explanation of how the book works, for example: "This is a story that you, the reader, control. Read the directions at the end of each page and make wise decisions. If you make poor decisions, you may become lost in the sands of ancient Egypt for ever!"

Creating an adventure book adds another layer of complexity to this project, so the teacher should carefully consider suggesting such an activity to any particular student or group of students. The instructions for creating a 24-page adventure story (Handout 5) are similar to the instructions for making a 12-page book. Students who undertake this challenge must research more archaeological sites (eight is the suggested number, A through H, as shown in Handout 5), work through a more complex story map, and deal with a thicker stack of paper at imposition (Handout 5 shows a 12-sheet stack, which results in a 24-page book).

Drawing a story map, which is a flow chart that shows the different paths that the reader might follow, is essential to making an adventure book "work." Handout 5 suggests a way for students to construct their story map and impose it onto a book format.

A "Publication Party"

On the last day of our unit of study on ancient Egypt, I reserve the library and spread out the student-made books on several tables. I invite students to stroll about, read each other's books, and write positive comments on the back covers. My students always enjoy this activity. The publication party is a valuable, positive reinforcement for the time and effort that my young authors put into this project.

The Ancient Egypt adventure project has been well received for several years. It provides an opportunity for students to combine history research, creative writing, project planning, and arts and craft skills in their exploration of ancient Egypt. Through hands-on projects such as this, students learn that actively participating in the learning process can be challenging and fun. Who knows what might happen when kids get excited about learning? They might explore tunnels of a pyramid or discover a vessel from a bustling, ancient marketplace. They might even find their names on the cover of a book!

David Cooper teaches seventh grade social studies at Manheim Township Middle School in Lancaster, Pennsylvania.

Researching Archaeological Sites

This is a list of some of the most famous ancient Egyptian archaeological sites. There are other sites you could read about and use in your adventure story. You will need to become knowledgeable about several of them to write a really good adventure book.

Colossi of Memnon
Sphinx at Giza
Tomb of Tutankhamen
Valley of The Queens
Pyramid of Khafre
City of Tel Al Amarna
Temple of Karnak
Temple of Abu Simbel
Tomb of Ramses II
Step Pyramid of Djoser (Zoser)
Pyramid of Menkaure
Avenue of Sphinxes
Temple of Luxor
Valley of the Kings
Tomb of Amenhotep III
Pyramid of Khufu (Cheops)
The Bent Pyramid of Snefru

Here are some things that you might tell about a site:

1. Structures at the site (pyramids, sculptures, architectural elements)
2. Markings at the site, such as hieroglyphs
3. Period (from year __ to year ____) that the site was most active
4. How the site was used in ancient times
5. Who would have been at the site
6. What you would see and hear the site in ancient times
7. What people were doing at this place
8. What these activities meant to the people living then

Along with written notes, you might want to draw a quick sketch of an object, scene, or map for using later in your book. As you take notes and draw sketches, write down the source of your information, such as the book's title and author. You may want to return to an illustration to add detail to your own drawings, so mark down useful page numbers, too.

Suggested Resources

Books

Reeves, N. and Wilkinson, R. H. *The Complete Valley of The Kings*. New York, NY: Thames and Hudson, 1996. Detailed tomb descriptions and a clear map of the valley.

Dersin, D., ed. *What Life Was Like: On The Banks of the Nile*. New York: Time Life, 1996. Portrays Egyptian daily life vividly.

Solbiati, R. *Journey to the Past: Ancient Egypt*. Austin, TX: Raintree Steck Vaughn, 2001. Excellent illustrations and detailed information for other useful sites.

Siliotti, A. *Guide to the Pyramids of Egypt*. New York: Barnes and Noble, 2003. Ample information about all Egyptian pyramids. Excellent photographs. Many illustrations are cut-a-way views.

Siliotti, A. *Guide to The Valley of The Kings*. New York: Barnes and Noble, 2004. Excellent tomb descriptions with the same illustrative features as *Guide to the Pyramids of Egypt*.

Stafford-Deitsch, J. *The Monuments of Ancient Egypt*. Bloomington, IN: Indiana University Press, 2001. Beautiful photographs of Egyptian sites and well-written overviews of key sites.

Websites

Kinnaer, J. The Ancient Egypt Site, www.ancient-egypt.org. Designed and maintained by an Egyptologist; provides quality images and scholarly historic information.

Millmore, M. Mark Millmore's Ancient Egypt, www.eyelid.co.uk. Outstanding site with a Nile map showing site locations, detailed illustrations of Egypt's ancient temples and tombs, and several other Egypt related features.

The British Museum. Ancient Egypt Interactive Learning, www.ancientegypt.co.uk/menu.html. Well-constructed interactive site that includes educational stories, photos, and games; provides general information about Egyptian buildings and monuments.

Virtual Egypt, www.virtual-egypt.com. Expansive collection of photos, flash movies, "edu-tainment," and articles; organized well and easy to navigate.

Checklist for Planning and Production

Your name_____ Date _____

This checklist will help you create your story and construct your book, making sure that it has all of its parts in order. The maximum points that your teacher could award for each part of the project are shown.

Research Archaeological Sites **(20 points)**

Student uses classroom time well and participates fully in research, planning, and production
Uses scholarly sources of information
Uses classroom notes accurately

Create a Story Map **(15 points)**

The one-page introduction transports the reader to Ancient Egypt and describes a problem, mystery, or puzzle to solve
The story includes different scenes derived from different archaeological sites in Egypt
The one-page conclusion brings the traveler back home.

Sketch Out a Rough Draft **(15 points)**

The book is paginated correctly: the pages are in order in the stack of sheets
The first page is marked INTRODUCTION. The last page is marked CONCLUSION.
Inside pages each have brief scene taking place in ancient Egypt
The NAME of an archaeological site is written on every inside page page
Odd-numbered (right-hand) pages have just a few words outlining the scene and action
Even-numbered (left-hand) pages have a caption for an illustration and quick drawing of the site described on its facing page, or a sketch of an artifact or a map relating to that site.

Produce a Finished Book **(50 points)**

The front cover includes title, author, and an interesting image
The introduction transports the reader to ancient Egypt and describes a quest
Each scene in the book:
- describes an archaeological site, stating at least 3 unique facts about it (what things were there long ago);
- tells about the importance of that site (such as what occurred there, or who used that site);
- includes an accurate illustration of the site or an artifact, or a map

The last page of the story brings it to a conclusion
The next page, very last page of the book, gives a brief author biography (which tells who you are), as well as your school's name, city, and the date
The back cover is left blank so that readers of the book can sign their names after they have read it

Highest possible score for this project **100 points**

Sketching Out a Rough Draft

Imagine taking a book, opening it up right in the middle, and laying it down on a table. The diagram below is meant to represent just that. It shows what will appear on each page of your finished book, and how the pages will stack up when you fold and assemble them. The *imposition* is the plan and arrangement of a book's pages on larger sheets of paper so that, when folded and bound, the pages are in proper order.

In the imposition shown below, the ancient Egypt archaeology sites in your adventure story are labeled Site A, B, C, etc. The pages are, of course, labeled 1, 2, 3, etc.

To correctly impose your book, follow these steps:

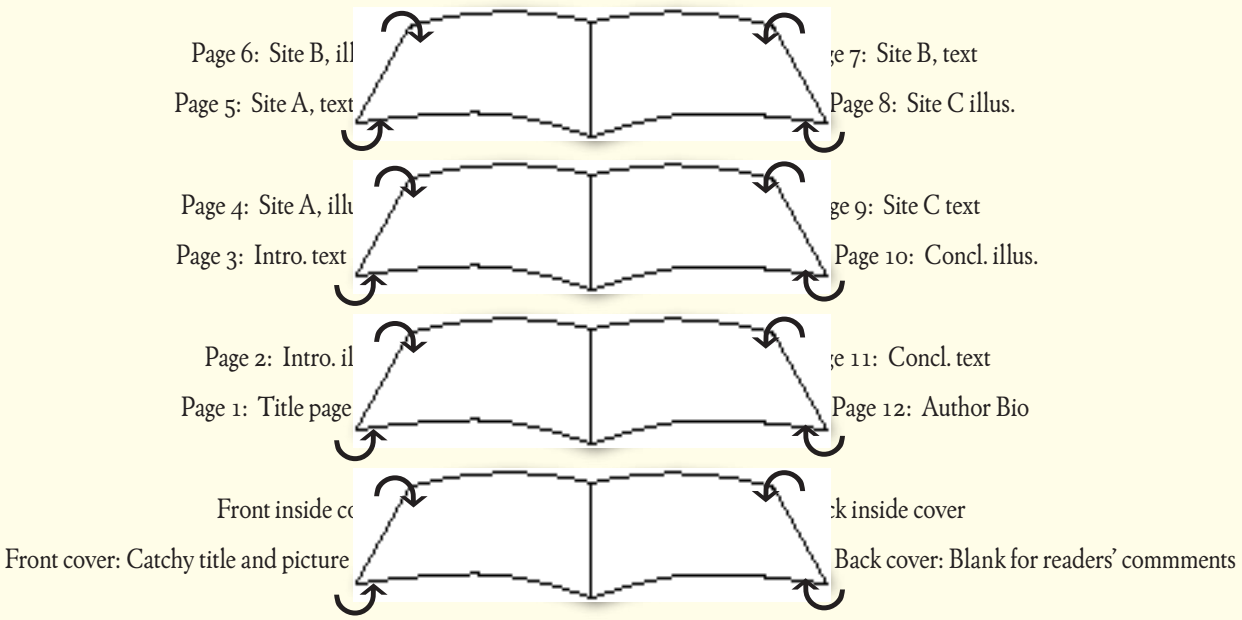
1. Count and stack up the sheets of paper
2. Fold the sheets down the middle
3. Label each page with a page number as you flip slowly through the blank book, from front to back (This step is called pagination)
4. Notice how each larger sheet of paper has provided you with four pages (which uses the front and back, the left and right sides of each folded sheet).
5. Carefully label what you want on each page: Which site in ancient Egypt goes on this page? Is it a page of text or a page of illustration? Use a pencil.
6. Take the sheets of the book apart so you can work on each page with ease

Producing a Finished Book

Throughout your book, illustrations will be on the left hand (even) pages, text will appear on the right. As you look at the sheets of paper that will become your book, the order of things will seem all scrambled up. But that's okay. If you lay out the pages following this diagram, the pages will be in proper order when you put them all together.

To make copies of your book, to publish it, place the pages on a photocopier (using the option: FROM a two-sided master TO a two-sided copy). When you are finished, you can staple the book along the fold.

Pagination for a 12-page book



The abbreviation "illus." means illustration; the "text" is your written story, the "concl." is the conclusion of the story.

Making an "Adventure Book"

(A larger challenge for extra credit)

Give Your Readers Choices

Write the plot of the book in the style of a "Choose Your Own Adventure" book or comic. In this genre of fiction, the reader has to make decisions that affect how the story proceeds. For example, the book may ask the reader:

If you choose to travel east to the Nile River, then turn to page 11.

But if you choose to travel west toward the Valley of the Kings, then turn to page 15.

In order to have many interesting choices for the traveler (the reader), your adventure will include descriptions of 8 different archaeology sites in ancient Egypt. It will be 24 pages long.

Creating an Adventure Story Map

See the example of an Adventure Story Map, Handout 5.

To begin your map, draw an introduction box on the far left of a sheet of paper, then draw one or two conclusion boxes to the right.

Draw 8 empty boxes in between the introduction and conclusion boxes.

Label each box with the name of an archaeological site (A through H) that you have researched.

Assign a page number to each of these boxes using odd numbers 5 through 19.

Connect each box (5 through 19) to any other box with an arrow, or to several boxes with several arrows (up to three outgoing arrows per box). One or more boxes must be connected to the conclusion (or one of two possible conclusions). The arrows indicate the options that the reader will have at the end of any particular page in the story.

Sketching Out a Rough Draft

Next, you will make a rough first draft of the book in pencil. Getting the correct part of the story onto the correct page can be especially tricky with an adventure story. Use a pencil, so you can erase mistakes. Refer to the figures. Here is a checklist of additional requirements to help you construct your rough draft:

The pages 1 through 24 are in order

Pages 4 through 20, odd and even pages, each have a site name (A through H) written at the top

Each of the odd pages 5 through 19 tells part of a story and leads the reader on to the next step in the adventure. In other words, each of these pages must:

direct the traveler where to go next ("Now turn to page 10"),

or give the traveler a choice, ("To enter the tunnel, turn to page 17. To climb the pyramid, turn to page 19"),

or end the story ("The jar contained a key that opened the door. On the other side was the good-old cafeteria! We'd made it back in time for lunch. The end!")

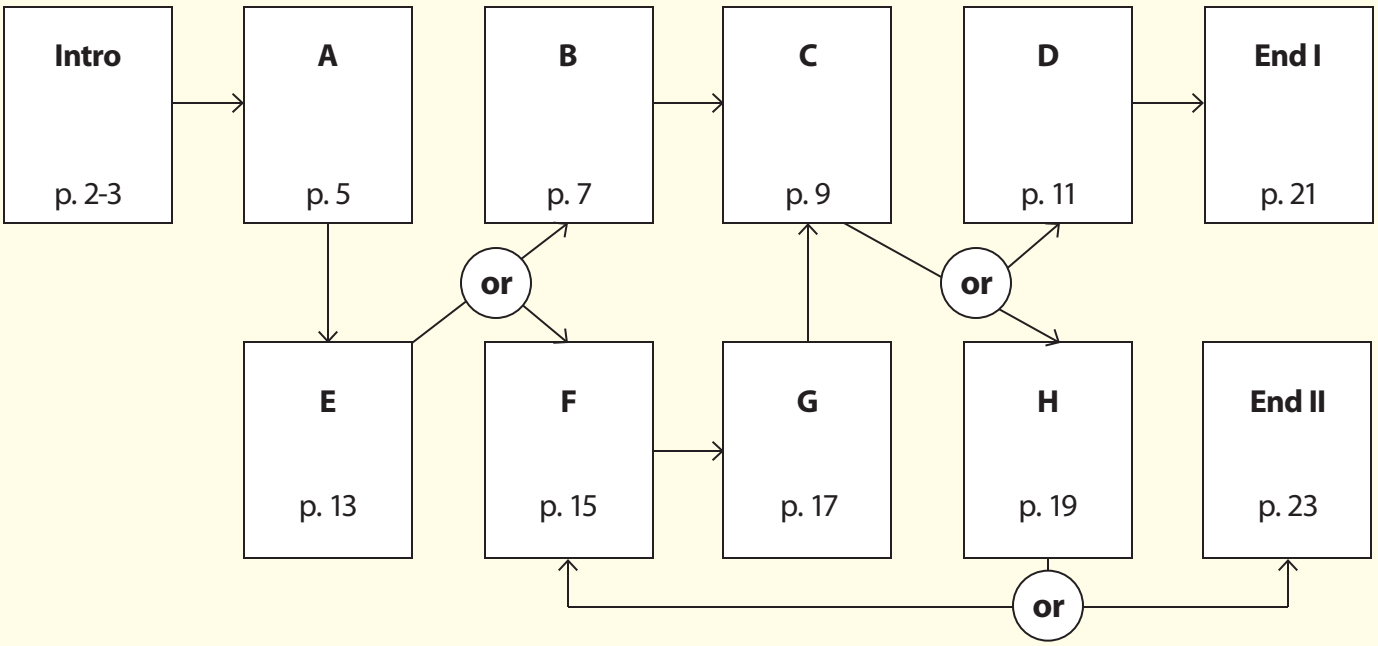
Each of the even pages 4 through 20 is devoted to an illustration. In your draft, each of these will be a quick (5-second) drawing of a site or an artifact, or it will be a map showing where the site is located in Egypt. Each of these sketches also needs a small caption or label at the bottom, telling what the illustration is about.

Facing pages of the bound, open book (such as pages 4 and 5) should have matching text and pictures.

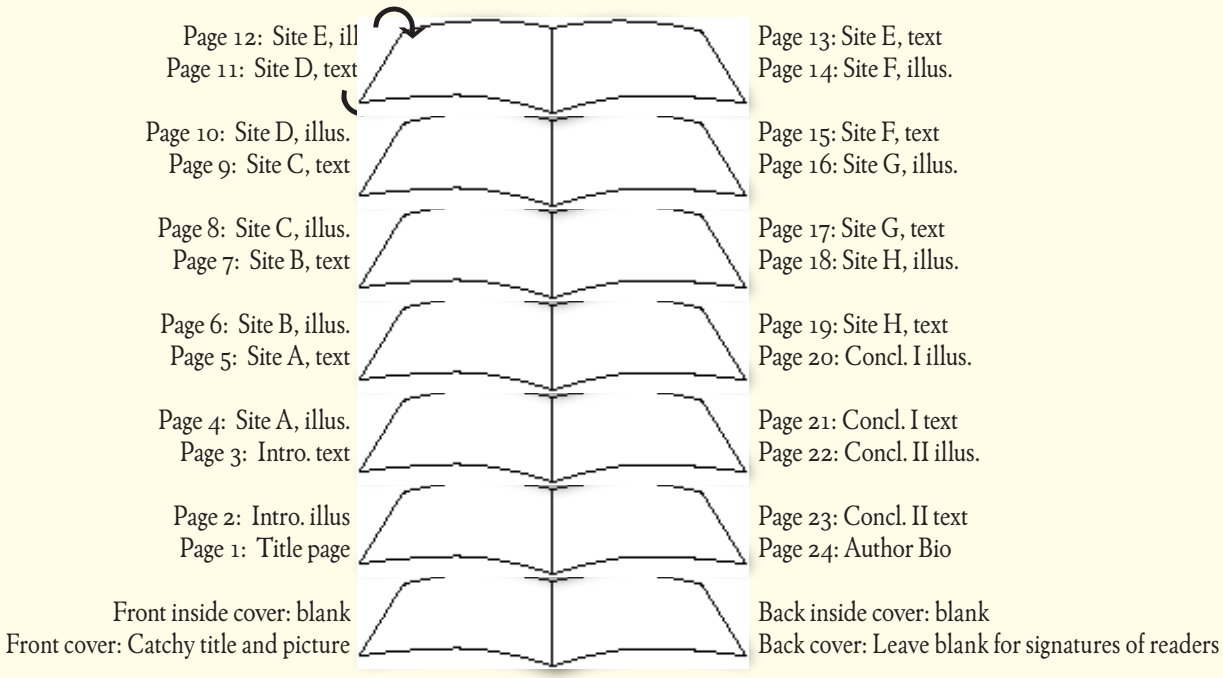
Producing the Final Book

Finally, take your rough draft, ink in the words and erase all pencil marks. Work on the drawings one at a time. Use colored pencils to color the illustrations, because markers will bleed through the paper. Give each picture a caption. Then give the adventure book to a friend to read. Does your friend enjoy reading it?

Story Map for a 24-page "Adventure Book"



Imposition for a 24-page "Adventure Book"



Note: Pages 22 and 23 can be left blank, or you may create a second, alternative conclusion to the book, different from that appearing on pp. 20 and 21. Depending on one's choices, the traveler could end up with one or the other conclusion to your story.

Middle Level Learning 23, pg. M16

Bandwidth Problems ca. 1912:
The Need for Federal Regulation

In the United States the use of wireless radio initially was unregulated—anyone could operate a radio transmitter anywhere, at any time, on any wavelength. And most utilized the longwave signals that traveled so well across land and sea. Naturally, severe interference occurred with everyone trying to use the same wavelengths. Eventually it was decided to do something about this, and because the individuals involved were working for the United States government, the action took the form of An Act to Regulate Radio Communication, passed by the U.S. Congress on August 13, 1912.

A year earlier, a Radio Service had been established in the Department of Commerce and Labor's Bureau of Navigation. It was initially charged with making sure ships carried wireless equipment. With the passage of the 1912 law, the job of licensing stations and operators was added to the Radio Service's duties. The country was divided into nine radio inspection districts (below), with a district headquarters for a Radio Inspector set up at a major port within each district. Initially, radio was dominated by ship-to-ship and ship-to-shore stations, plus amateurs who comprised the bulk of the land stations.

With regard to government control, the 1912 law was fairly liberal, since some, particularly the Navy, had wanted to nationalize radio altogether. Unfortunately, the law's language was sometimes unclear, and was geared toward two-way communication between stations that were permitted, and even expected, to use various wavelengths of their own choosing. Fourteen years later these flaws would help cause a breakdown due to congestion and interference between broadcasters.

Source: Thomas H. White, *Building the Broadcast Band* (February 6, 2001, at earlyradiohistory.us/buildbcb.htm#tech). The history of AM broadcast band (mediumwave) in the United States spans eighty years. This book (free on the web) is a review of its first decade—how it was established, initially evolved, suffered through a chaotic period when government regulation collapsed, and finally was reconstructed by the newly formed Federal Radio Commission, along lines that are still visible in our laws today.

Class Discussion Questions
(short answers are on page 8)

1. Why was some sort of federal government regulation of the airwaves needed in 1912?
2. What branch of the federal government wanted total control over the radio airwaves?
3. What did the U.S. Congress offer in 1912 as a solution to the problem?
4. Why were large port cities (see map above) chosen as "Radio Inspection Headquarters"?
5. Was the Act to Regulate Radio Communication of 1912 an effective law?