



#3641

PENCILS AND A TV SHOW

Grade Levels: 4-8

24 minutes

OAKLEAF PRODUCTIONS 1998

DESCRIPTION

Before talking to the group about how pencils are made, Ms. Jennings takes the viewer on a behind-the-scenes look at how a TV show is produced. Meet the gaffer, grip, director, and actors and learn their jobs. Then visit a pencil factory to see the 12-step process used to produce students' favorite school item.

ACADEMIC STANDARDS

Subject Area: Historical Understanding

- ◆ Standard: Understands and knows how to analyze chronological relationships and patterns
 - Benchmark: Knows how to construct time lines in significant historical developments that mark at evenly spaced intervals the years, decades, and centuries
 - Benchmark: Knows how to identify patterns of change and continuity in the history of the community, state, and nation, and in the lives of people of various cultures from times long ago until today

Subject Area: Economics

- ◆ Standard: Understands the concept of prices and the interaction of supply and demand in a market economy
 - Benchmark: Knows that money is a good that can be used to buy all other goods and services
 - Benchmark: Understands that when consumers make purchases, goods and services are transferred from businesses to households in exchange for money payments, which are used in turn by businesses to pay for productive resources and to pay taxes



BACKGROUND INFORMATION

The History of Pencils

Modern pencils are the descendants of ancient writing instruments. In ancient Rome, scribes wrote on papyrus (an early form of paper) with a thin metal rod called a stylus, which left a light but readable mark. Other early styluses were made of lead. Today we still call the core of a pencil the lead even though it is made from nontoxic graphite.



Graphite came into widespread use following the discovery of a large graphite deposit in Borrowdale, England, in 1564. Graphite left a darker mark than lead, but so soft and brittle that it required a holder. At first, sticks of graphite were wrapped in string. Later, the graphite was inserted into wooden sticks that had been hollowed-out by hand! The wood-cased pencil was born.

The Modern Era

The first mass-produced pencils were made in Nuremberg, Germany, in 1662. Until the war with England cut off imports, pencils used in America came from overseas. (William Monroe, a cabinetmaker in Concord, Massachusetts, made the first American wood pencils in 1812.) Benjamin Franklin advertised pencils for sale in his Pennsylvania Gazette in 1729. George Washington used a three-inch pencil when he surveyed the Ohio Territory in 1762. The first mass-produced pencils were unpainted to show off their high-quality wood casings. However, by the 1890s, many manufacturers were painting their pencils and giving them brand names.

VOCABULARY

- | | |
|-----------------------|-------------------|
| 1. gaffer | 12. casting agent |
| 2. grip | 13. audition |
| 3. electrician | 14. rehearse |
| 4. soundman | 15. clapstick |
| 5. assistant director | 16. graphite |
| 6. director | 17. lead |
| 7. make-up artist | 18. carbon |
| 8. actors | 19. slugging |
| 9. wardrobe | 20. cylinder |
| 10. wide-shot | 21. extract |
| 11. cameraperson | 22. conveyor belt |



BEFORE SHOWING

1. Review the vocabulary.
2. Name as many types of television shows as possible (e.g., game shows, cartoons, dramas, situation comedies, news). Discuss their characteristics.
3. Discuss the history of pencils. (See BACKGROUND INFORMATION.)



AFTER SHOWING

1. Review the job titles of a TV production crew.
 - a. List the skills needed for each crew member.
 - b. List each crew member's responsibilities.
2. Compare and contrast the TV production crew of a live-stage performance.
3. Create an Amazing Facts bulletin board using the following:
 - a. A pencil will write in zero gravity, upside down, and under water!
 - b. A pencil can write 45,000 words!
 - c. More than 2 billion pencils are used in the United States every year, and most of them have erasers! However, most pencils sold in Europe do not have erasers!
 - d. The typical pencil can draw a line 35 miles long!
4. Discuss the explanation of why most pencils are yellow.
 - a. Pencils have been painted yellow ever since the 1890s.
 - b. During the 1800s, the best graphite in the world came from China. American pencil makers wanted a special way to tell people that their pencils contained Chinese graphite.
 - c. In China, the color yellow is associated with royalty and respect. American pencil manufactures began painting their pencils bright yellow to communicate this "regal" feeling and association with China.

SUMMARY

TV Show

Did you ever wonder how your favorite TV show is made? It takes much work and many people to make a TV show. We never see the people behind the scenes that make a TV show. For example, a gaffer. Their responsibility is to light the set. They light the actors so they will look natural. The gaffer works with the cameraperson very closely. The electrician works with the gaffer setting up the lights properly. The cameraperson must pay close attention to the director in making sure cues are understood in getting the correct shots and close-ups. The soundperson must make sure the sound level is such to hear the voices clearly. The assistant director helps the director. The make-up person is responsible for the actors' make-up and hair. It is the director's job to interpret the writer's script and bring it to life on the screen. The director supervises every aspect of the show. Without this position, we wouldn't



have a show. The writer might dispute this because before any of this can happen, we need a script and that's up to the writer.

The actors' responsibility is to have their lines memorized. The director will guide them as to where to stand and what kind of reaction is desired. With everyone working together doing their jobs, the result is a TV show. Sometimes they use tricks. In the case of the show "Did You Ever Wonder," we see the kids as pop-ups. The kids stand against a big green screen reciting their lines. Then in the editing room, the green is erased and the actors are dropped in the individual scenes. They do this to give the appearance that the actors are there when they're really not. While music isn't always noticeable, it is very important to set the mood. Sound effects help us to understand and feel what's happening in the show.

Pencils



We call them lead pencils, even though there's really no lead in them. The lead is really a mixture of graphite and clay. The name "lead pencil" probably comes from the first-known writing materials that were lead which were used by the Greeks and Romans.

Later they discovered graphite and used it to write with by wrapping string around it. In 1686, a way of putting graphite between strips of wood was discovered.

By the end of the 18th century, a Frenchman named Conte discovered a new way to make pencils. He mixed powdered graphite, powdered clay, and water to make a paste. He then baked the mixture. It wrote just as smoothly as solid graphite. In 1839, a German man developed a way to put this graphite paste into wooden rods. He also invented machinery to cut and groove the pencil wood.

The first step is to mix the graphite with clay and water in a very high-speed mixer. We find graphite in mines deep beneath the ground. The more clay that we add to the mixture, the harder the lead will be. The less clay, the softer and darker the lead will be. When the mixture is ready, it looks like breadcrumbs.

The crumbled graphite is put into a billet press. The billet press squashes the mixture to make it a solid piece of lead.

The solid piece of lead is forced through tiny holes the size of the strips of lead. The lead is soft like licorice. They call this an extrusion press. The strips are cut into 7/8-inch strips.

The strips are rotated in containers in a procedure called core drying. This is done to extract any remaining water. The lead is still soft.



RELATED RESOURCES

Captioned Media Program

- Communication Products and Services #3113
- Crayons and Markers #3596
- Paper #3639
- Pencil Drawing #8345



World Wide Web



The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and "kid-safe" sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

- **THE PENCIL PAGES!**

<http://www.pencils.com/>

The history of pencils, information on renewable resources, all about pencil-making, all about pencil lead, and an eraser game place.

- **CRAYOLA**

<http://www.crayola.com/>

Educators, parents, and Crayola Kids sections at this colorful sight! Generate cards, locate lesson plans by subject and media, or choose from a huge array of clickable pull-down menu categories.

- **DRAWING TIPS**

<http://www.radicalman.com/tips/main.htm>

Over 140 simple tips and tricks to improve your cartooning. Easy navigation. Fun as an independent activity. Click in the left frame to choose. View directions in the right frame to draw.

- **MARK KISTLER'S IMAGINATION STATION**

<http://www.draw3d.com/>

Learn to draw 3-D with public television's drawing teacher. Drawing lessons, contests, encouragement, and more.

- **KIDS' CORNER**

<http://www.media-awareness.ca/eng/med/kids/kindex.htm>

Offers a variety of parent-approved media links for kids. Go to the "Site Map" button for additional teacher, parent, and librarian links to media information.

- **THE MEDIA LITERACY ONLINE PROJECT**

<http://interact.uoregon.edu/MediaLit/HomePage>

A gateway site from the University of Oregon that offers hundreds of media selections in well-organized categories.