

Autographs

The Web

General information

The Museum of Science and Industry—www.msichicago.org

The Internet Movie Database—www.imdb.com

The Academy Awards—www.oscars.org (links to the Academy of Motion Picture Arts and Sciences)

The American Film Institute—www.afi.com

A few schools with top film programs

University of Southern California—www.usc.edu

University of California, Los Angeles—www.ucla.edu

Columbia College, Chicago—www.colum.edu

New York University—www.nyu.edu

Books—Available in our *ACTION!* store

Story by Bob McKee

Screenplay by Syd Field

American Film Institute Desk Reference:

The Complete Guide to Everything You Need to Know about the Movies by Melinda Corey

L.A. from A to Z: The Actor's Guide to Surviving and Succeeding in Los Angeles by Thomas Mills

Adventures in the Screen Trade by William Goldman

Action!: Establishing Your Career in Film and Television Production by Sandra Gordon

DEVELOPED BY THE MUSEUM OF SCIENCE AND INDUSTRY

Visit www.msichicago.org for more information.

Sponsored by 

Answer key:

$$1 \quad \frac{24 \text{ frames}}{\text{second}} \times \frac{1 \text{ foot}}{16 \text{ frames}} = \frac{1.5 \text{ feet}}{\text{second}}$$

$$3 \quad 100 \text{ minutes} \times \frac{90 \text{ feet}}{\text{minute}} = 900 \text{ feet}$$

$$2 \quad \frac{1.5 \text{ feet}}{\text{second}} \times \frac{60 \text{ seconds}}{\text{minute}} = \frac{90 \text{ feet}}{\text{minute}}$$

$$4 \quad 2 \text{ hours} \times \frac{60 \text{ minutes}}{1 \text{ hour}} \times \frac{90 \text{ feet}}{\text{minute}} = 10,800 \text{ feet}$$



An Exhibit Guide



AN EXHIBIT DEVELOPED BY THE MUSEUM OF SCIENCE AND INDUSTRY

Presented by 



THRILLING!



Astounding!

Inspirational!

EDUCATIONAL!

Get swept away by the power and magic of **ACTION! AN ADVENTURE IN MOVIE MAKING.** From the creators of such museum hits as **THE COAL MINE** and **U-505**, this new exhibit focuses on the people who brought you such smash films as **SPIDER-MAN** and **PIRATES OF THE CARIBBEAN: THE CURSE OF THE BLACK PEARL**. This exciting exhibit is unlike any other ever staged.

WITNESS the triumphs and struggles of real filmmakers (Steven Spielberg), actors (Harrison Ford), and other professionals (cinematographer Amy Vincent). **EXPERIENCE** the true tales of life in "the biz." **MARVEL** at the amazing skills needed to make a film. **GAZE** upon real movie props and equipment. **GASP** at the amount of money involved. And, in the end, **YOU ARE THERE** as a member of a real production, shooting a complete, live-action adventure flick that is yours to keep (and to license to your friends for a cut of the back end!).

This Exhibit Guide will help you navigate the rough-and-tumble world of Hollywood, as it comes to life in this exhibit. The guide is organized into three sections.

- PRE-PRODUCTION:** ACTIVITIES TO ENJOY BEFORE YOU ENTER THE EXHIBIT
- IN PRODUCTION:** WAYS TO MAKE THE MOST OF YOUR VISIT
- POST-PRODUCTION:** IDEAS TO HELP YOU TAKE THE **ACTION!** OUT OF THE MUSEUM

So, let's focus, people. We have a movie to make here. Places, everyone! Lights, camera, and... **ACTION!**



Pre-Production

everything that happens **BEFORE** the actual filming of a movie



Soon you will enter an exhibit about the magic of the silver screen. **Moviemaking is a style of storytelling that has only been around about 100 years. Movies are complex pieces of art that require not only huge amounts of money, but an array of talented people with skills ranging from the artistic to the scientific. Begin the ACTION! by discussing movies with some of the people around you.**

Film Fact

Location, location, location.

In the early days of the movies, at the turn of the 20th century, one in five films was made not in Hollywood but here in Chicago. Essanay Studios, on the city's North Side, was the home of rising film stars Charlie Chaplin and Gloria Swanson. Essanay reigned for about a decade until the movie industry moved to the Los Angeles area, attracted by cheap land, diverse terrain, and great California weather, which allowed for year-round filming. Essanay Studios in Chicago closed in 1917, and Hollywood became the next movie capital.

TRY ANSWERING THESE QUESTIONS!

How many movies have you seen in your entire life? When did you see your first film and with whom?

What is your favorite movie? Why? Who starred in it? Who directed it? Do you know who wrote or produced it?

What do you think is the best part about making a movie? What job would you want on a movie set? What do you think you would have to learn to perform that job?

Which kind of movie would you like to make? Comedy? Drama? Action? Who would you thank if you won an Oscar®?

Pitch-a-Pitch

A *pitch* is a brief description of a movie idea—a summary of the film in no more than two or three sentences. A *pitch* is used to try to get someone to help you make a movie. Used as a verb, *pitch* also means the actual telling of the movie idea. For example, Steven Spielberg pitched his pitch for *Jurassic Park* in order to convince people to help him make the film.

A pitch for the film *Shrek* might go something like: A grumpy green ogre meets a beautiful princess in the woods and soon falls in love with her. With the help of his friend, a talking donkey, the ogre rescues the princess from a mean prince only to find out that she has an amazing secret. It's an animated fantasy with romance, drama, and a lot of comedy.

TRY THINKING OF PITCHES FOR THE FOLLOWING MOVIES THEN PITCH THEM TO YOUR FRIENDS. DID THEY GUESS THE RIGHT MOVIE?

Jurassic Park

Spy Kids

**Pirates of the Caribbean:
The Curse of the Black Pearl**

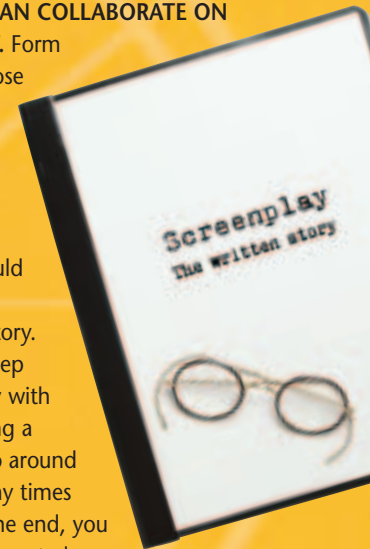
NOW THINK OF YOUR OWN IDEA FOR A MOVIE AND PITCH YOUR POTENTIAL BLOCKBUSTER TO A FRIEND.

One of Many

When you watch a movie, you are looking at one work of art. However, unlike a single painting or sculpture, hundreds of people work together to produce a movie. You will meet some of these people in *Action! An Adventure in Moviemaking*. All of them collaborate, or work as a team, to make art.

SEE HOW WELL YOU AND THE PEOPLE AROUND YOU CAN COLLABORATE ON A WORK OF ART. Form

a group and choose one person to begin telling a story, but only the first sentence. Another member of the group should then say the next sentence in the story. Take turns and keep building the story with each person saying a new sentence. Go around the group as many times as you want. In the end, you all will have collaborated on a complete story.



Reel People

The Agent

Talent agents are especially busy at the beginning of the moviemaking process. An agent helps their clients—actors, writers, musicians, and other talent—select the best project to work on from the many that may be available to them. If their client gets hired, the agent helps them negotiate wages and credit with the filmmakers.

To be an agent, you must have good communication skills and like working with people. You will talk to a lot of people in order to get your client an audition or to finalize a deal. Some agents have law degrees, which helps with negotiating contracts. Many agents begin working as assistants to other agents before getting clients of their own.

In Production

the phase of moviemaking when **FILMING** takes place

In this part of the exhibit, you get to MEET THE MOVIEMAKERS. Hundreds of people with many different talents operating thousands of pieces of equipment collaborate to make a movie. How many people do you think it took to make your favorite movie?

While touring ACTION!, make a list in your head of all the work people must do in order to make a movie. How would a movie production be affected without one of these jobs?

The Screenwriters

FIND THE REAL MOVIE SCRIPTS.

Have you seen any of these movies?
Which one(s)?

How are the scripts the same? How are they different? Why do you think they might look similar, even if their stories are different?

The Producers and Directors

EXPLORE THE PRODUCERS' AND DIRECTORS' AREAS AND COMPARE THE TWO JOBS.

Who is responsible for finding a story and getting money to make a movie? Who oversees how the story is told?

What skills are needed by both the producer and the director? What skills are unique to each job?

FILM FACT: The Script

Almost all scripts look basically the same—same type, spacing, and margins. This format is standard in Hollywood. Usually, if you want to get someone to read your script and make the movie, your screenplay must follow this form.

Generally, a script for a comedy is between 85 and 100 pages. A drama is usually 100 to 120 pages. A rule of thumb in screenwriting is that one page equals one minute of movie.

Film Fact: Scene Science

Moviemaking is as much a scientific endeavor as an artistic one. Science is the basis for all of the electrical equipment, the cameras and lenses, the special visual and digital effects, and even for formulation of makeup.

Many film people have science or engineering degrees. Science is so important to movies that the Academy of Motion Picture Arts and Sciences gives out Scientific and Technical Achievement Awards every year.

Movie Ingredients

The following statistics are for an average Hollywood movie. Real films vary; for example, *The Blair Witch Project* employed only a handful of people and cost just \$35,000 to make, while *The Matrix Reloaded* cost \$127 million and featured 1,943 names in its credits!

One script

About 2,500 people*

Thousands of pounds of equipment (cameras, lights, props)

Hundreds of pounds of food and drinks (for cast and crew)

Sound stages and outdoor locations

Musical score and sound effects

Time (average movie: 1–2 years, including 10 weeks of filming)

Money (average movie: \$40 million, plus \$20 million for advertising)

*Counting all of the people responsible for making a movie is difficult. Not all of them are listed in the film's credits. A lot of people indirectly help to make a movie, including delivery people, accountants, and caterers.

The Costume Designer

LOOK CLOSELY AT THE COSTUMES ON DISPLAY.

Have you seen the film *Pirates of the Caribbean: The Curse of the Black Pearl*? If not, just by looking at one of the costumes, try to guess the time period of the story and the role of the character who wore it. If you don't know the story of the movie, make one up based on what you have learned about the costume.

Classify the costumes by:

- Color
- Material
- Time period/Fashion
- Gender
- How they make you feel

Which costume is a villain's costume? Which outfit would a hero wear? How can you tell?

Real Reel Person

Makeup Effects Designer Greg Nicotero

Greg Nicotero was studying to be a doctor. In 1984, he took a break from his study of medicine to help director George Romero make the movie *Day of the Dead*. He expected to resume his studies after a few months. Instead, Greg got hooked on moviemaking. Greg's story is an example of how anyone, even you, can become a part of Hollywood. In the past 15 years Greg's company, KNB EFX Group, has worked on some of the biggest movies in the industry such as *Spy Kids* and *Austin Powers*. Check out some of KNB's objects in the exhibit. Do you see how Greg's knowledge of biology and medicine helped in their creation?

In Production

the phase of moviemaking when **FILMING** takes place

Real Reel Person

2nd Assistant Cameraman
Colin Slaby

Colin works in the industry as part of a camera crew. He first got involved with the business at the end of college when he and a friend visited a set in Madison, Wisconsin. After a 10-minute introduction to a camera crew member and a follow-up letter, Colin got his first break. He began as a Camera Production Assistant (PA) on the movie *Hoodlum* when it filmed in Chicago in 1996. A PA helps the whole crew and often is an unpaid, entry-level job. He moved to Los Angeles and moved up to 2nd Assistant Cameraman to work on hit movies such as *Barbershop*. He explains that success in the business "is anyone's guess and has a lot to do with luck."



Real Reel Person

On-Set Dresser Sarah Bullion

Sarah Bullion works on films in the Art Department under the Production Designer. She sets up furniture in between shots and is the *troubleshooter*, fixing any problems with the set during filming. Sarah studied European history in college and never even thought about working in Hollywood until a friend asked, "Why not?" Sarah said, "I have always loved movies, but it never occurred to me that I could work on them until a friend asked that simple question." Since that two-word challenge eight years ago, Sarah has been making a living working on hits such as *Erin Brockovich*. She likes the constant change of pace and the itinerant lifestyle, but it takes some getting used to at first.

The Mystery Jobs

The names of a few movie jobs give no clue as to what the person actually does. Let's open the curtain of secrecy.

Best Boy—The main assistant to a department head. This name comes from an old nautical term for first mate.

Gaffer—The chief electrician on a movie set. This person is also called "juicer."

Grip—A person who does a little bit of everything on the set, including construction and hauling furniture. The grips are also known as the "hammers."

Greensperson—The person who takes care of all of the plants on a set.

FILM FACT: The Credits

The crawling list of names at the end of a movie—The Credits—is where the whole film crew gets recognition. Most names appear for about eight seconds. This isn't very long when you consider that a cameraman like Colin Slaby, working 12 hours a day for three months, spent about 900 hours on the movie!

There's a Place in the Movies for You

A movie production is a collection of people from different backgrounds and with many diverse skills for some jobs such as:

WRITING

Screenwriter
Advertiser

MATH

Accountant
Cameraman
Computer Technician
(for Visual Effects)

VISUAL ART

Visual Effects Technician
Makeup Designer
Director
Production Designer
Director of Photography
Storyboard Artist

MANAGEMENT

Studio Executive
Producer
Director
Production Designer
Director of Photography
Best Boy

TRADES

Cooking:
Caterer
Carpentry:
Set Constructor,
Grip
Electrical:
Gaffer

SCIENCE

Cameraman
Camera Designer
Makeup Chemist
Visual Effects Technician
Greensperson
Makeup Designer

MUSIC

Soundtrack Composer
Music Supervisor

LAW

Agent
Studio Executive
Security



Post-Production

everything that happens **AFTER** the actual filming of a movie

Congratulations! You've toured **ACTION!** and helped create a movie, but before you start living a life of glamour in Hollywood, expand your knowledge with these activities and resources. Try them at home or at school.



REFLECT ON YOUR VISIT.

If you had to choose just one object or video you saw that you think best illustrates the theme of the exhibit, what would it be and why did you choose it?

What was the most exciting part of the exhibit?

What job do you want to do in the movies? Why?

ACTIVITY

Develop Your Pitch

Remember your pitch from the **Pitch-a-Pitch** activity from Pre-Production? Try expanding your idea a little more by writing a treatment. A treatment is a detailed outline of a movie's plot or story. It could be the next step to the Oscars® and a career in the spotlight!

ACTIVITY

That's So Predictable

Many screenplays in Hollywood follow a similar story structure. Basically, movie stories unfold in three acts. The first act introduces the main characters and ends between pages 20–25 with a large change in the action or story. Act II chugs along until around pages 80–90, when another major change in the story occurs. The end, Act III, resolves the story in about 10–15 pages. There are many more details involved in writing a screenplay, but almost every movie (average 100 minutes) follows this basic structure.

NOW, TRY THIS! Look for the three-act storyline next time you see a movie or rent your favorite film. Remember that a page in a screenplay is about equal to a minute on film. Check your watch at 20–25 minutes into the movie to see if there is a change in the story. Do the same around 80–90 minutes. Does the movie follow the three-act structure? What happens when you time a long (over two hours) film?

FILM FACT

Movie Math

Standard movie film (called 35mm film) holds 16 frames per foot of film.

1. If 24 frames equal one second of film, how many feet of film is needed for one second of a movie? 2. How many feet long is one minute of a movie? 3. How many feet long is a 100-minute movie? 4. How many feet of film is needed for a two-hour movie?

Answers on back cover



ACTIVITY: The Original Visual Effect

Talking trees or huge explosions are not the only illusions in the movies. The movies themselves are illusions. The action of a movie is captured on millions of individual pictures called frames. Traditional movie film is just a long succession of frames. When all of these frames are shown in front of you rapidly, one after another, your brain puts them together as continuous smooth movement. You experience the illusion of movement from fast-moving still pictures—that is why movies are called "motion pictures."

Make a Flipbook

To get an idea of how movies work, try this:

- 1 Get index cards, a pencil, and a stapler.
- 2 Imagine something that you can draw moving, like a stick figure walking or a rocket blasting off.

- 3 On the first card of your stack, draw your object.
- 4 Repeat your drawing on each card, but every time, draw it a little bit further from its position in the previous card and in the direction you want it to move.
- 5 After about 24 drawings, keep them in order and staple them together along the top edge of the cards.
- 6 Now, hold your stack of drawings along the staples and flip the cards from front to back. What happens?

How fast can you make your object move? When you watch a movie, 24 frames speed past your eyes in one second. At this speed, you don't see the individual pictures, but smooth motion.

Learn More

Be a Moviemaker

Get a jump-start on your career in the film industry now. With computer technology, you can make your own sophisticated movies by yourself, with family, or with friends. You can come up with film ideas by yourself, but here are some materials that can help your vision become reality.

Writing Software

Final Draft®—This computer program is the industry standard for writing polished scripts. Everyone uses it. This program automatically fits your words into the standard screenwriting format.

Cameras

A digital camcorder is what you need to shoot your movie magic.



Editing Software

Final Cut Pro or *Final Cut Express*—These are two extremely popular versions of the same software. Many studios use this software to produce the movies you see in theaters. If you use a Mac, *iMovie* is easy-to-use software that lets you be very creative.

Transferring Your Pictures

After you edit your film, you will want to make it into a DVD or VHS tape so you can share your work with others. To make DVDs, you will need a DVD burner and software for it. For VHS, you will need a VCR and special cables.

Creativity

You supply this on your own. Think action, think drama, think comedy, and think "Hollywood, here I come!"