The Filmmaking Process
Scope & Sequence

Film is a unique art because it requires a collaborative creative process. A variety of artists and craftspeople work together to make a film. Some have expert knowledge of light and technology, others in sound, music, acting, design, or construction. In this chapter, students study this collaborative process. The lessons move through the three stages of production. We begin with planning the film's story, structure, and “look,” then move on to filming the action on the set. Finally, in the last lesson, we take students into the studio, where the film editor assembles the raw footage into the final film, and where the composer and sound editor create the soundtrack.

The educational value of studying these various filmmaking roles extends beyond visual literacy into other disciplines—language arts, social studies and history, art, music, and science. Students tap their knowledge of various subject areas in order to fully comprehend what they are viewing. For example, students tap their knowledge of literary conventions to learn how cinematic conventions differ. In the enrichment lesson on widescreen projection, students first learn about the concept of aspect ratio. The scope and sequence of the activities will guide students in acquiring this knowledge prior to screening and analyzing the film clips.

### Film Study Standards

1. **Film Language.** Students learn to read and interpret visual text by developing a film vocabulary, identifying editing techniques, and analyzing film elements within selected scenes.

2. **Production and Creative Expression.** Students understand that a film is an expression of a director’s personal vision produced through a collaborative process. Students understand and distinguish the various filmmaking roles that contribute to the final work of art.

3. **Viewers’ Response and Aesthetic Valuing.** Students understand that a film is a work of art. Students describe, interpret, and analyze a film’s visual design. They respond to and make informed judgments about a film, deriving personal meaning from the work. They express their viewpoints through oral and/or written presentations.

4. **Cross-Curricular Connections.** Students first tap their knowledge of other disciplines to study a film. They then apply what they have learned about film to other disciplines, making connections between film and literature/language arts, film and history/social studies, film and other arts, and film and sciences.
Teacher Overview

Making a film is a creative process that happens in three stages—pre-production, production, and post-production. Lesson 1 provides an overview of these three stages and introduces the concept of the “director’s vision.” While many different people contribute to making a film, the director is the one person who has the greatest understanding of how all the parts fit together to make a whole.

Activity A introduces students to the people with whom the director works. During pre-production, the screenwriter and the director collaborate on the screenplay. Also during this first stage, the cinematographer and the director plan how to shoot each scene. In addition, the director works with the production designer to create the sets and costumes. Production—the second stage—is the actual shooting of the film. Post-production begins once filming ends. At this point, work shifts from the set to the studio. Working with the film editor and music composer, the director assembles shots into scenes, and the scenes into the final film. Students will study the specific filmmaking roles in more detail in subsequent lessons in this chapter.

Activity B presents an original Story of Movies documentary on the work of director Robert Wise.

Learning Outcomes

Students will
- identify the three stages of making a film;
- describe the director’s role in each stage of production;
- explain what is meant by the term director’s vision;
- identify other major filmmaking roles.

Key Terms
(Note: Most terms are defined within the activity text that follows. You may also refer to the glossary.)

pre-production, production, post-production, director, director’s vision, cinematography, collaboration, script, backlot, set, film editing, sound editing, music score
Activity A: Three Stages of Production and the Director's Role

Concept
The process for making a film occurs in three stages—pre-production, production, and post-production. While many people contribute to making a film, the director is the one person who has the greatest understanding of how all the parts, or filmmaking tasks, come together to create the final film.

Engage
Share this information with students:
In a 1997 interview published in Moviemaker magazine, director Spike Lee stated that he would encourage his daughter to pursue a career in film. He said, “I would want her to be behind the camera, not in front of the camera. That’s where the power is.”

Ask:
What is the difference between working behind the camera and in front of the camera? Actors work in front of the camera. Everyone else involved in making a film works either behind the camera or in the studio. These filmmaking roles include cinematographers, production designers, costume designers, as well as the film editor, sound editor, and music composer.

What does director Spike Lee mean by “power” in this statement? Answers will vary, but should focus on the idea of the power to communicate. The director, not the actors, controls what a final film will look like and what message it will communicate.

Explain & Explore
- Display and/or distribute Graphic Organizer 2-1: What Happens During Pre-Production? Review the key points on the graphic organizer as recommended below.

The Director’s Vision
Vision refers to the film’s overall look or design as well as its narrative structure, the way the story is told.

The Script
What is it? The script is the story, what happens to whom and when. The script is like a blueprint, or plan, for how the story will unfold on the screen. It includes primarily the actors’ original dialogue.

Who creates it? The screenwriter writes the story. Emphasize, however, that the director may make changes in the script throughout the production process. Tell students that they will study the script and the screenwriter’s role in more detail in lesson 2.

The Production Design
What is it? The production design involves creating the set where the action will occur.

Who creates it? The production designer, also called the art director, oversees the design and construction of all sets, scenery, and props as well as the selection of shooting locations. Tell students that they will study the production designer’s role in more detail in lesson 2.

The Cast
What is it? All of the actors in the film are members of the cast. This includes those who have speaking roles and those who do not, such as the people who comprise the crowd gathered at the spaceship landing site in The Day the Earth Stood Still.

Who selects it? Generally, the director selects the cast during pre-production. Tell students that they will study casting in more detail in lesson 2.

- Display and/or distribute Graphic Organizer 2-2: What Happens During Production? Review the key points on the graphic organizer as recommended below.

Cinematography
What is it? Cinematography is a language that communicates ideas, emotions, and relationships to the audience through the use of light and shadows, objects, and people, as well as camera angles, distances, and movement.

Who creates it? The cinematographer is the person who is responsible for all the camerawork on the set. When filming a scene, the director may use multiple cameras, each focusing on a different angle or player. Tell students they will study cinematography and the role of the cinematographer in more detail in lesson 3 and in chapter 3.

Acting
What is it? Acting is the action performed as well as the dialogue and emotion expressed by the characters in a movie.
Who performs? Clearly, the actors perform all the action on the screen. Emphasize this important point: Two other people besides the director play an important role in determining what part of an actor's performance the audience gets to see and how—the cinematographer and the film editor. Students will study more about how the camera affects an actor's performance in lesson 3, activity A, and will study the film editor's role in lesson 4.

Display and discuss as indicated below Still 2-1: The Backlot, Still 2-2: The Backlot at Night, and Still 2-3: A City Street. Explain that these are “production shots.” They are not images intended to be included in the film. Rather, they show the filmmaking crew shooting the scenes. They may be used for press and publicity or simply to document the filmmaking process. Each of the three stills are production shots from the “backlot” of the movie studio, an outdoor space that has been transformed into exterior sets for the movie. The first two shots are sets that represent the place in Washington, D.C., where the spaceship has landed. The third represents a city street in the nation's capitol. Encourage students to observe closely the details in each photograph.

Guided Discussion

Still 2-1: The Backlot

1. What filmmaking equipment do you see in this still image? The camera is in the lower center of the frame. The large cylinder in the lower right is a light. The microphone is the oval-shaped object just above the center of the frame. It is on a boom, or an arm, that enables the microphone to record sound without being seen within the camera's view. The solid rectangle on the left side of the frame is a reflector. It directs the light.

2. Which principal character from the film is in the center of the filmmaking activity? Klaatu.

Still 2-2: The Backlot at Night

3. How does this production still differ from the first? The shooting is taking place at night, evident by the dark sky. The camera, in the left third of the frame, is positioned higher than in the previous still. This is because the principle characters are standing on the saucer, which is itself high above the ground. Students will note the ladder just below the camera operator. Students will also note that the boom and microphone are again in position above the actor's heads.

4. Although you cannot see the lighting equipment, how do you know that the filmmakers are using artificial lights to film this shot? Klaatu and Gort are visible even though this is a night shot and there is no obvious outdoor lighting except for the stadium-like lights in the background.

Still 2-3: A City Street

5. Describe what you see in this production still. Observations will vary but should include the principle actors, Patricia Neal and Michael Rennie, on the ground, with the filmmaking crew close by. The camera and the microphone are in place.

6. The camera that is filming this shot is very near the ground. Why? In this scene, students may recall, Klaatu has been fatally shot. The camera is positioned in such a way as to show the audience a close-up shot of him and Mrs. Benson leaning over him.

Film Editing

What is it? Editing involves selecting the best shots (visual images) and arranging them in a logical sequence so that the story flows smoothly from one scene to another.

Who does it? The film editor works with the director in deciding which shots and scenes to use.

Sound Editing

What is it? Sound editing involves assembling elements of the soundtrack, including dialogue and sound effects. The soundtrack must be in sync with the images on the screen.

Who does it? The sound editor and/or sound-effects editor works with the film editor and the director.
Music Score
What is it? The score is the music played at various points throughout a film, creating atmosphere and mood. The score also includes any melodies or songs featured in the film.

Who creates it? The music director and composer, working with the director, select and create music to communicate mood and to suggest meaning to the audience. Often, the composer incorporates preexisting music into the film’s score.

Close
George Lucas, who created the Star Wars series, among other films, has stated that a director makes “100 decisions an hour.” Ask students to list some of the decisions a director might make during pre-production, production, and post-production, listing their suggestions on a chalkboard or overhead projector. These decisions will include but are not limited to: deciding how to light a scene, where to place the camera, whether to photograph the scene from a distance or close up, what the set should look like including what props or objects should be part of the set, who to cast as characters, what the characters’ appearance will be, which film clips to use and which to discard, how to transition from one scene to another, etc.

Explain that by the end of chapter 2, they will have a better understanding of these decisions as they learn more about the collaborative process involved in making a film.

Activity B: In the Director’s Chair: Meet Robert Wise

Concept
Director Robert Wise’s filmography spanned decades and focused on multiple social issues presented through a variety of movie genres.

Engage
Write the word mentor on the chalkboard or overhead projector. Discuss with students the meaning of this word. A mentor is an advisor. Usually the mentor has knowledge of a subject or experience working in a particular field. The mentor gives guidance to someone who is learning about the subject or just entering that field.

Ask: If you wanted to become a film director, how would you go about finding a mentor?

Explain & Explore
- Display and/or distribute Graphic Organizer 2-4: Putting It All Together—Three Stages of Production. Review the concepts introduced earlier in activity A by emphasizing that the director is the one filmmaker who is involved in all three stages of film production.
- Share this information about the “director’s vision” with students:
  Many factors contribute to a “director’s vision.” One is the story content, or what the story is about. A second factor is the narrative structure, or how the director tells the story. A third factor is the film’s “look.” A film’s look is the overall visual design. The director creates this look through many different choices—deciding what colors and costumes to use, how the set should appear, how to light the set. Even the choice of the actors to play the roles can contribute to the film’s overall look, and therefore, the director’s vision.
- Share this information about director Robert Wise with students:
  Robert Wise was neither a scientist nor a journalist. However, those were two types of people Wise portrayed in The Day the Earth Stood Still. Likewise, he had never served in the American military in China and yet he made a movie about a soldier on a gunboat patrolling the Yangtze River. That film was called The Sand Pebbles. In the early 1960s, Wise made a musical called West Side Story. It was about gang warfare between Caucasian and Puerto Rican teenagers in New York City. But again, Wise was not Puerto Rican and he certainly was no longer a teenager at the time he made this movie. Although he lacked personal experience with these situations, the three films were realistic and therefore believable.
  Emphasize this key point: Just as a writer researches his or her subject matter prior to writing, so, too, does a director. Robert Wise, in particular, devoted a great deal of time and energy during the pre-production stage of each film he made to learn about the film’s subject matter.
- Ask: What did Robert Wise need to know or learn in order to make these three very different movies—one about a visitor from another planet, one about soldiers patrolling a river in China, one about teen gang warfare? Answers will vary but should focus on not only how the characters in each film dressed, spoke, and behaved, but also about what motivated the characters to do the things they did. Emphasize that a film director need not be expert in a subject in order to make a film about it, but does need to be able to tell a good story that audiences will find compelling.
Guided Discussion

1. Who were two mentors who influenced Wise and helped him to move from being a film editor to directing, and what specifically did Wise learn from these mentors? Orson Welles and Val Lewton. Welles taught Wise the importance of pacing—with that being a story moving so that the audience is interested in what happens, and also the importance of the soundtrack in engaging the audience and moving the story forward. Lewton taught Welles how to use light and shadows to create suspense.

2. Wise says he was an anti-militarist. How did that influence his decision to make the film *The Day the Earth Stood Still*? He believed the film had an important anti-war message—that attempting to solve the world’s problems through military means is not in the planet’s best interest.

3. What do you think Wise means when he says he didn’t want to get up on a soapbox? Answers will vary but should focus on the main idea that a soapbox is a sort of platform from which to lecture. Wise wants his films to deliver a message but he doesn’t want to preach to the audience.

Introduce Film Clip 2-1 by listing some of the films by Robert Wise that are featured in this mini-documentary about his career. They include:

- West Side Story (1960) – a film version of a Broadway play that retells Shakespeare’s *Romeo and Juliet*, setting the conflict in late-1950s New York City. (You might want to note that Rita Moreno, who won an Academy Award for her performance as Anita in *West Side Story*, narrates this film clip about Robert Wise.)
- I Want to Live (1958) – based on a series of San Francisco news articles about a real-life murderer sentenced to die in the electric chair.
- Odds Against Tomorrow (1959) – about a black man who reluctantly agrees to cooperate in a crime.
- The Sound of Music (1965) – the story of the real-life Von Trapp family’s escape from Austria during the Nazi occupation at the start of World War II.
- The Sand Pebbles (1966) – the story of an American gunboat patrolling China’s Yangtze River in 1926 during a revolution in that country.

View Film Clip 2-1: The Wise Vision. Review discussion questions. Recommended answers are below.

Answer Key for Screening Sheet 2-1: The Wise Vision

1. Robert Wise did not begin his career in film as a director. Which filmmaking positions did he hold prior to directing his first film? *He worked as an editor of sound effects and later became a film editor.*

2. On which great American film did Robert Wise work with director Orson Welles? *Citizen Kane*

3. Robert Wise excelled in a number of different movie genres. Name four genres featured in this mini-documentary. *Answers may include science fiction, musical, western, drama, war, horror.*

4. Identify two or more social issues that Robert Wise focused on in his films. *Answers may include race relations, war and atomic destruction, teenage gang violence, the death penalty.*

5. The narrator ends the film by stating “His work stands as a rich and resonant portrait of his own vision of a better world.” Although you may not have seen the other films featured here, what do you think the narrator is saying about the career of Robert Wise? *Answers will vary but should focus on the main idea that Wise believed film was a way to communicate to people, and the type of films he chose to make reflected his belief that humans, although flawed, could make the world a better place.*

Close

Who is the author of a film? Ask students to write a short essay that answers this question. Remind students that while the screenwriter may be the person who pens the scripts, words alone do not make a movie. And while the actors are often the most recognizable names and faces associated with film, they are only one part of the collaborative process.
Teacher Overview
What the final film will look like may exist in the director’s imagination, but the screenwriter, actors, and the production designer are some of the people who help create the fictional world of the movie. The screenwriter plots the action. The actors are cast in order to bring paper characters to life on the screen. And the production designer creates the physical world of the film.

Activity A explores how science fiction film differs from science fiction literature. Students explore the differences in literary and cinematic conventions and, similarly, how the screenwriter’s role differs from that of a prose writer. Research has shown that knowledge of literary conventions increases a reader’s ability to comprehend and evaluate texts. The same is true of cinematic conventions. By acquiring knowledge of the techniques filmmakers use to communicate meaning through moving images, students are better prepared to form judgments about those communications. Activity B discusses the casting of a film, an important pre-production task and one in which the director’s vision will determine which actors are best suited for the roles. In Activity C, students learn how the production designer works, from constructing sets and scouting real-world locations for filming, to furnishing sets and designing costumes.

Learning Outcomes
Students will
- distinguish between literary and cinematic convention;
- understand the difference between a shot and a scene;
- identify three factors a director looks for when casting an actor for a role;
- define what production design is;
- identify the production designer’s tasks in making a film.

Key Terms
(Note: Most terms are defined within the activity text that follows. You may also refer to the glossary.)
screenwriter, literary conventions, cinematic conventions, shot, scene, body language, inflection, pitch, vocal effects, character type, supporting role, production design, production designer, set, scenery, location, blueprints, props, costumes

Lesson Materials
Activity
Activity A
The Screenwriter’s Role—How Science Fiction Film Differs from Science Fiction Literature and Why

Activity B
Casting the Actors—Creating Credibility, Part 1

Activity C
The Production Designer’s Role—Creating Credibility, Part 2

Print
Graphic Organizer 2-5:
Literary v. Cinematic Conventions
Reading Activity 2-1:
“Rocket Summer”
Reading Activity 2-2:
The Spaceship Lands

Graphic Organizer 2-6:
Casting a Film

Graphic Organizer 2-7:
What Is Production Design?
Reading Activity 2-3:
Building a Believable Spaceship
Graphic Organizer 2-8:
What Does the Production Designer Do?

DVD
Still 2-4:
Elektro, America’s First Robot
Still 2-5, A–C:
The Saucer’s Blueprints
Still 2-6: Gort’s Costume
Concept
Science fiction film differs from science fiction literature, in part, because each art form has different conventions, or structural codes. As a result, the language tools a screenwriter uses differ significantly from those used by writers of literature.

Engage
Ask: *What's the difference, if any, between reading a book and watching a film?* Prompt student responses by asking them where and when they read versus where and how they watch a film. How long does each activity take? Some students may state they read a novel in time segments, perhaps stopping at a chapter’s end to continue reading at a later time, whereas they usually view a film from beginning to end at one sitting.

Many students may comment on the physical act of reading, such as eye movement and turning a page and generally reading alone rather than sitting and watching a story unfold on the screen in a crowded movie theater. However, emphasize the mental skills required. Both reading a book and watching a film require comprehension and critical-thinking skills, such as linking cause and effect and drawing inferences. Remind students that watching a film involves paying attention not just to what is seen on the screen but also to the order, or sequence, in which the images appear. Sound, too, can add layers of meaning to viewing a film.

Ask: *Can a novelist also be a screenwriter?* The answer is yes, but—and this is the key point—screenwriters use different tools and follow a different set of guidelines, or conventions, than writers of literature do.

Explain & Explore
- Display or distribute Graphic Organizer 2-5: Literary v. Cinematic Conventions. Review the key points on the graphic as suggested below.
  - **Conventions**
    - *Conventions* are customary ways of doing something. Conventions are generally accepted rules that govern the use of language, such as spelling and grammar. Conventions are also codes, or techniques for constructing works of art.
  - **Literary Conventions**
    - *Literary conventions* are the techniques and devices that a writer uses when creating a work of literature. A poet, for example, might use rhyme and meter. A novelist might use characterization, flashback, imagery, or other devices when writing a story.
  - **Cinematic Conventions**
    - *Cinematic conventions* are the techniques or devices that a filmmaker uses when creating a film. Shots, camera angles, and lighting are a few of the cinematic conventions a filmmaker might use to tell a story.
  - Emphasize this important point: Film and literature, including science fiction film and science fiction literature, differ precisely because the art forms have different conventions.
  - Distribute Reading Activity 2-1: “Rocket Summer.” Explain that this passage comes from The Martian Chronicles, a science fiction novel (some may call it a collection of stories) written by Ray Bradbury. Bradbury first published the book in 1950. The book has become a modern science fiction classic. Read the passage and discuss using the questions below.

Answer Key for Reading Activity 2-1: “Rocket Summer”

1. What is this passage about? What happens? *In Ohio, the launch of a rocket sends a sea of searing hot exhaust across the land, melting snow and creating—in January—a false but momentary summer.*

2. If you were to paint a picture, based on Bradbury’s description, what items and/or people would you include? What colors? *Answers will vary as some students may focus more on the change of the climate and others on the rocket itself. Still others may focus their images on the people's reaction to the sudden blast of exhaust.*
Emphasize a key point: Because film uses cinematic conventions rather than literary conventions, a screenplay looks significantly different from a work of prose. Review with students two key cinematic conventions: shot and scene.

**Shot**
A shot is a segment of film. It is made up of a series of single frames set in motion. Shots can be of interior or exterior places. There are many different kinds of shots, some characterized by the distance between the camera and the subject and some based on the angle from which the camera focuses on the subject. A medium shot (or med.) generally shows people from about the waist up. A close-up (or CU) shot indicates that the camera is much closer to the subject, providing greater detail to the audience. Note that students will learn more about different kinds of shots in chapter 3.

**Scene**
A scene is a series of shots joined so as to communicate an action that occurs in one time and place.

Distribute Reading Activity 2-2: The Spaceship Lands. Read the script. Prompt discussion with the following questions.

**Guided Discussion**
1. How are the two passages, “Rocket Summer” and “The Spaceship Lands,” similar in subject matter? Both are about spaceships— one launching, the other landing. Both are about people’s reactions to these events. In “Rocket Summer,” the reaction seems to be more of curiosity and amazement rather than fear as is the case in “The Spaceship Lands.”
2. How does the format or structure of the two passages differ? “Rocket Summer” follows prose conventions, presenting information in sentences and paragraphs. The script, however, presents information using cinematic conventions, specifically shots and scene headings and descriptions of action.
3. Does Edmund North, like Ray Bradbury, use similes in his script? No. North’s script is a sequence of images, or shots, joined together to create a scene. The screenwriter’s words identify what the viewer will see on the screen. In contrast, a simile is a comparison of two generally unlike things that have some characteristic in common.

Display again and review, if necessary, Graphic Organizer 2-5: Literary v. Cinematic Conventions. Now that they have read two different science fiction passages—one an excerpt from literature and the other an excerpt from a film script, students should have a better understanding of the difference in conventions illustrated on this graphic organizer.

**Close**
Emphasize this important point: Ray Bradbury’s audience is readers. The audience for Edmund North’s script, however, is filmmakers. A film audience does not read a screenwriter’s words. The novelist, therefore, writes what the audience will read; the screenwriter creates the story and provides a blueprint, or starting point, for what the audience will see on the screen.
Concept
Casting is the selection of all the actors in a film, from principal players, to those with minor roles, to extras (people in the background of a shot) and stunt doubles.

Engage
Tell students to imagine that they have written a screenplay that is being produced. The film is in pre-production and one of the tasks is casting the actors. Who decides which actors to choose—the screenwriter or the director?
No doubt, students will voice enthusiasm about being able to choose who gets to act in their film. However, while the screenwriter may indeed have particular actors in mind, the casting decisions are ultimately the director’s. The director may hire a casting director to seek or audition actors for various roles or the director may hire a casting agency to select possible actors to audition for the roles. The director’s final choice, however, is linked to the director’s vision for the film and whether or not an actor will be credible in the role.

Explain & Explore

- Define **credibility**. Credibility is believability, or the ability to present something as true.

- Display and/or distribute Graphic Organizer 2-6: Casting a Film. Selecting the right actor is often critical to a film’s success. Many factors determine whether an actor is the right person to portray a character in a film. Review the concepts on the graphic organizer, as suggested below.

  **Physical Characteristics**
  Physique refers to body type, specifically the size and shape of a person’s body. Depending on how the director envisions a character, such physical characteristics as tall, short, rotund, muscular, etc. may be required. Make up and costuming can transform an actor, of course, and can even age him or her. However, some physical characteristics are desirable for a role – for example, Klaatu’s height and slim fitness, or Gort’s imposing size.

  **Acting Ability**
  Acting ability involves much more than memorizing lines and speaking loudly and clearly. Among the resources in an actor’s toolbox are the following: *Body language* is a nonverbal way of communicating such as a particular way of walking, standing or sitting. *Mannerisms* are gestures (Patricia Neal, for example, in *The Day the Earth Stood Still* twists her gloves while in the taxi cab with Klaatu as a way of expressing her anxiety). *Emotions* are reactions and expressions of feelings, sometimes conveyed through facial changes and sometimes through body language. *Vocal effects* include tone of voice, inflection, pitch, volume, and rhythm of spoken words and sounds.

  **Character Types**
  The public often has expectations of the sort of roles an actor will play based on the actor’s public persona, appearance, previous roles, or reputation. Sometimes a director may not select an actor for a role because the public associates the actor with a character type that doesn’t fit the director’s vision. However, sometimes a director is seeking an actor to portray a character type, such as a hero, a villain, a bumbling fool, or a loner. While most actors prefer not to be typecast, some actors focus on perfecting a character type.

- Share this information with students:

  The role of Klaatu posed something of a problem for director Robert Wise. A well-known actor might have jeopardized the film’s credibility. Why? Audiences might have had a hard time believing that a familiar actor was an alien from space. They might remember the actor’s previous roles or recall reading about him or her in newspapers or fan magazines. On the other hand, British actor Michael Rennie was relatively unknown in the United States in 1951. Having never seen him before, audiences might be more inclined to believe he was from “out of this world.” Director Wise also noted that he liked Rennie’s tall, thin physique and his genteel mannerisms.

- Define **supporting role**. A supporting role is integral to the plot, but the role is not the principal focus of the film. While students may understand the importance of casting the right actors in principal, or starring, roles, they may not have thought much about the importance of the supporting players. These actors, too, help to create the film’s credibility.
Actor Sam Jaffe portrayed Professor Barnhardt, a supporting role in The Day the Earth Stood Still. While he is not on the screen nearly as much as Klaatu, Helen, Bobby, or even Gort—his role is important to the plotline. Director Wise commented that one reason he chose Jaffe for the role was that his physical appearance resembled that of Albert Einstein, a real-life and much respected nuclear scientist. Wise understood that his audience was familiar with Einstein and his distinctive white, wiry hair. Jaffe would no doubt remind the audience of the scientist and thus lend even greater credibility to the story.

Close
Discuss with students whether credibility is always important in a film. Encourage them to discuss the importance of credibility in other moving images, such as news broadcasts and television programming. Further discussion by asking them to clarify the difference between credibility and realism. Ask them to provide examples of films that are credible but not necessarily realistic. Some may suggest fantasy films like those based on the Harry Potter novels or J. R. R. Tolkien's Lord of the Rings trilogy.

Activity C: The Production Designer's Role—Creating Credibility, Part 2

Concept
The production designer, sometimes called the art director, is the person responsible for designing the physical world of the movie. This includes overseeing whatever construction is necessary, including sets, props, and costumes.

Engage
Display Still 2-4: Elektro, America’s First Robot. Ask students to discuss what this image might be. Many will naturally say that the image is Gort, or a model of Gort perhaps created by the filmmakers during the pre-production stage of making The Day the Earth Stood Still. The figure has the same rigid appearance, especially in the legs.

Share this information with students:

Elektro was the first true robot ever built in the United States. Westinghouse constructed the robot in 1937-1938. Elektro may resemble Gort in appearance but the real robot’s purpose was not to police the universe. It was to become a household appliance, one that might cook, wash dishes, cut the grass, and do other chores. Elektro stood more than seven feet tall and could walk and raise and lower its arms. It also spoke, thanks to the use of a 78-rpm record player planted inside its body. The robot was a favorite attraction at the New York World’s Fair in 1939. The cost to build Elektro was several hundred thousands of dollars.

Was Elektro the inspiration for Gort? No one knows for certain. But this much is known. The producer of The Day the Earth Stood Still knew that creating a real robot would be much too costly. Creating a costume and hiring an actor—albeit a very large actor—to wear it was much more affordable.

Explain & Explore

Display and/or distribute Graphic Organizer 2-7: What Is Production Design? Review the first key concept on the graphic, as suggested below.

Sets, Scenery, and Locations
A set is the constructed place or site of each scene. A set may be the interior of a building, such as an office or a boardinghouse, or even the inside of an automobile or a flying saucer. It may also be an exterior site, such as a porch. Scenery refers to backgrounds, which may be natural outdoor landscapes, such as mountains, beaches, or fields. Scenery may also be constructed, such as a backdrop seen through a window. Locations are any interior or exterior settings that are not at a production studio or backlot.

Ask students to make a list of the interior sets used in The Day the Earth Stood Still. These would include not only the hospital room, the news broadcasting booths, and the various rooms of the boardinghouse, but also the interior of the flying saucer, various military headquarters, etc.
Distribute Reading Activity 2-3: Building a Believable Spaceship. Remind students that in 1951, the idea of flying saucers was discussed as possible. No one had ever seen a real flying spaceship. Rockets had not yet broken the planet’s atmosphere to orbit the Earth. There were no space satellites as there are today. Teachers Note: Students will study in more detail the U.S. military’s investigation into unidentified flying objects circa the 1950s in chapter 4. Read, then discuss the passage using the questions below.

**Guided Discussion**

1. Robert Zemeckis, director of the film *Contact*, said that the description of the “pod” in the Carl Sagan novel was vague and while that was all right for a book, it wasn’t for a movie. What’s the difference? A novelist can suggest a spacecraft without having to show it. The reader will imagine the machine, based on the author’s words. A film, however, tells a story using images. Audiences might have been very disappointed (and not believed the plot) if the director never showed the time travel machine. If necessary, remind students of the discussion of literary v. cinematic conventions in activity A.

2. Why did the production designer and his team build two different flying saucers for *The Day the Earth Stood Still*? Answers will vary but clearly a miniature model would allow the camera to photograph the entire spacecraft while a larger model would be needed for closer shots.

3. What four steps were necessary in order to build the flying saucer for *The Day the Earth Stood Still*? Researching what a spacecraft might look like, given the real world of science; sketching the proposed spacecraft; building a three-dimensional model; and constructing a life-size set on the studio lot

**Display** Stills 2-5, A–C: The Saucer’s Blueprints. Explain that the spaceship was a set that had both an exterior and an interior. The audience sees the interior of the ship once Klaatu enters and programs his computers to suspend all electrical power on Earth. The exterior of the ship required construction of a life-like vehicle. (Note that these sketches focus on the inclined port hatch, not the whole vehicle.)

Discuss each sketch with students, explaining what a blueprint is. A blueprint is a plan, usually a technical drawing that uses white lines and text printed on a blue background. (What students see projected on the DVD, however, are black-and-white copies of the blueprints.) Architects, engineers, and construction workers are among those who use blueprints as a guide before and during the building process.

**Display again** Graphic Organizer 2-7: What Is Production Design? Discuss the second and third elements on the graphic organizer.

**Props, Furnishings, and Trimmings**

Prop is short for property. A prop is a movable object that is part of a set. Examples include a telephone or a train set (as in the shot where Bobby is playing in his room in the boardinghouse), dishes and coffee pots (such as those used during the breakfast scene in the boardinghouse), etc. Furnishings are the furniture pieces that are used in the film, including beds, couches, desks, etc. Trimmings are the decorative elements in the set, including draperies, bedsprads, wall hangings, lamps, etc.

**Costumes, Makeup, and Hairstyles**

Costumes are the clothing each character wears, including everything from hats to shoes. Costumes are also called “wardrobe items.” Makeup includes hairstyles and wigs as well as cosmetics applied to an actor’s face and/or body.
Display Still 2-6: Gort’s Costume. Draw students’ attention to the laces down the front of Gort’s legs. Ask them to speculate what these laces are for and why. In shots from the actual movie, they are not noticeable. Some students may suggest that the camera was not close enough to reveal such detail.

Share this information with students about the design of Gort’s costume:

The costume designer created two different suits for the actor portraying Gort. One costume laced up the back and the other laced up the front. Why? Somehow the actor had to get into the costume. But to create credibility that Gort was not wearing clothes but was made of metal, the zippers or laces must not be seen. When the camera photographed Gort from the front, he wore the suit that laced up the back and vice-versa. Reverse shots of Gort meant that he wore the suit that laced up the front, as illustrated in this still.

Display and/or distribute Graphic Organizer 2-8: What Does the Production Designer Do? Review each task. Emphasize that the production designer works with a team of people, each of whom have responsibility for various aspects of the film’s overall look or design.

Close
Pose this situation to students: If you were to remake The Day the Earth Stood Still, what changes (if any) would you make in the production design? Encourage students to consider not just the design of the spaceship but also characters and costuming.
Teacher Overview
In the second stage of the filmmaking process, the work of the actors and cinematographer is key. Also called the director of photography or DP, the cinematographer is responsible for shooting the film, but this involves much more than just operating the camera. Working closely with the director, the cinematographer controls what the audience sees and how, including what is seen of the performances of the actors. Note that in chapter 3, students will study in more detail the various types of camera techniques and lighting that create meaning and a movie’s particular visual style. In this chapter’s activity A, they will learn how reaction shots help to convey meaning and contribute to character and/or plot development. Activity B introduces students to another cinematic technique: the process shot and rear projection. In process photography, a previously-shot film segment is replayed, or projected, onto a screen from behind while actors are photographed performing in front of the screen. The effect is to simulate that the actors are in a real location when in fact they are in a studio or on a set. In today’s films, this is usually accomplished with digital technology and is often called a composite shot. In this activity, students analyze a film sequence to determine which images are live action filmed on location and which were filmed in a studio using process photography. Enrichment activity C focuses on a technological development in filmmaking during the 1950s—widescreen projection. In completing this activity, students learn about aspect ratio.

Learning Outcomes
Students will
- define what cinematography is;
- describe the role of the cinematographer in making a film;
- analyze how the camera controls what the audience sees of an actor’s performance;
- explain what rear projection is and how it is used to create a process shot;
- understand the meaning of aspect ratio and describe the difference between standard and widescreen projection (Enrichment).

Key Terms
(Note: Most terms are defined within the activity text that follows. You may also refer to the glossary.)
cinematography, cinematographer, reaction shot, rear projection, process shot, aspect ratio, standard screen, widescreen

Lesson Materials
Concept
Cinematography is a film language that communicates relationships, ideas, and emotions to the audience through photography. The cinematographer works closely with the director to design each shot for the film and to control what the audience sees of the actors on screen.

Engage
Ask students to explain how acting for the screen in a film differs from acting on stage in a play. Many students may respond by saying there is no difference. Both film and stage actors communicate thoughts and emotions through vocal expression, body language, and actions. Others might point out that the actors in a play perform in front of a live audience while film actors perform in front of a film crew. In a movie house, the audience is seeing pictures of the actors. This last point may seem minor and yet it is significant.
Share this information with students:
The director and cinematographer determine when and how the audience sees the actors—in bright lights or dark lights. While a director of a play can also work with lighting, a film director has one important tool that a stage director does not—a camera. The use of the camera also controls how the audience sees the actors—from far away or up close . . . or not at all. The director's decisions on how to photograph the actors on the set—and later, how much of the actor's performance to keep in the final film—is what makes acting on the screen significantly different from acting on the stage.

Explain & Explore
- Display and/or distribute Graphic Organizer 2-9: What Is Cinematography? Emphasize that cinematography is a language using visual images. Students will learn specific camera and lighting techniques in chapter 3. However, a basic introduction to cinematography is necessary in order to understand how the cinematographer collaborates with the director in creating the film's look. Discuss each concept on the graphic organizer as suggested below.

  **Use of Light and Shadow**
The use of light helps create reality or guide the audience where to look, what to notice, and how to respond. Sometimes light and shadow are clues to what may happen or what a person is thinking or feeling.

  **Use of Color Palette**
A palette is a range of colors. A red palette, for example, may have purples or oranges or browns as well as various shades of red. In a film, the director and the cinematographer often work closely with the production designer to decide what colors they want to emphasize in set design and costumes.

  **Use of Movement**
There are two types of movement in a film—one in which the camera remains stationary (fixed) while the people or objects move; and another in which the people and objects are stationary while the camera moves. A cinematographer can also combine these two types of movement by having the camera and the people and objects moving at the same time.

- Display and/or distribute Graphic Organizer 2-10: What Does the Cinematographer Do? Explain that the primary responsibility of the cinematographer is to translate the director's vision to the screen through moving photographic images. As a result, the cinematographer works closely with the director in both the pre-production and production stages. Review each of the cinematographer's tasks on the graphic organizer.

- Define reaction shot. A reaction shot is a type of camera shot that emphasizes dramatic impact and is usually a close shot of an actor's face. The purpose of a reaction shot is to focus the audience's attention to suggest meaning. Pay attention! The reaction shot tells the audience. This is important. Although the camera controls what the audience sees, each individual viewer must deduce what the reaction means and its relevance to character or plot development. Emphasize, too, that not all viewers interpret reaction shots the same way.

- Display or distribute Screening Sheet 2-2: Action-Reaction. Tell students that they are going to view three separate film segments, each featuring a reaction shot. Explain that after each segment, you will allow time for students to identify and describe the reaction and the meaning it conveys. Emphasize that they are not to rate the actors' performances as either good or bad. Rather they are to pay attention to the cinematographer's use of the camera to
communicate with the audience. Emphasize, too, that while there is some dialogue in these scenes, the actual reaction shots do not have dialogue. The actor communicates through body language and facial expressions, which the cinematographer captures on film.

View **Film Clip 2-2: Action-Reaction.** Stop the DVD between segments to allow students time to identify and describe each reaction and to record their observations on the screening sheet. Recommended answers are below.

### Answer Key for Screening Sheet 2-2: Action-Reaction

<table>
<thead>
<tr>
<th>Film Segment</th>
<th>Action</th>
<th>Who reacts, and how?</th>
<th>What meaning does the shot suggest? Why is this reaction significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A—The Music Box</td>
<td>A doorbell rings. Helen leaves the room. Carpenter notices a small music box on the side table. He opens and then closes it, picks it up, and smiles</td>
<td>Carpenter expresses two reactions—first, curiosity when he hears the music playing, and then amusement and interest when he closes the box and the music stops.</td>
<td>Carpenter’s surprise and curiosity suggest he did not know what the music box was. His smile suggests more than amusement. Students must deduce that the mechanism that turns the music on and off has given Carpenter an idea. It is important because this is when Carpenter first gets the idea to “stop the world.”</td>
</tr>
<tr>
<td>B—The Flashlight</td>
<td>Bobby is running his toy train when Carpenter enters and asks to borrow a flashlight. He says that his room lights went out. Carpenter leaves and Bobby examines his train. A few minutes later, Bobby opens his door, sees the light go out in Carpenter’s room, then closes his door just enough to peek out to see Carpenter go downstairs.</td>
<td>Bobby expresses two reactions. First, he shows surprise and/or curiosity about what Carpenter has said. He does this by looking closely at his train track and at the train’s wheels. The second reaction is a closer shot of Bobby’s face. He again expresses surprise. Some students may suggest he expresses confusion and even fear.</td>
<td>Bobby’s curiosity at Carpenter’s statement of a train without tracks is what leads him to get up and go to the door. Although Bobby never states directly that he wants to know more, the viewer deduces that Bobby is leaving his room in order to ask Carpenter to tell him what he means. Bobby’s reaction once he sees the light on in Carpenter’s room suggests he has caught his friend in a lie. Carpenter evidently did not need the flashlight for the reason he stated.</td>
</tr>
<tr>
<td>C—The Signal</td>
<td>Bobby approaches the spacecraft site, having followed Carpenter there. Carpenter goes to a window in the barricade and uses the flashlight to signal Gort. Gort moves toward the soldiers.</td>
<td>Although Bobby’s curiosity has caused him to follow Carpenter, his reaction when he sees Klaatu nearing the spaceship is spooky intrigue. Once he sees Gort approach the soldiers, Bobby shows disbelief, then fear, then shock. He expresses this primarily through facial expressions, his mouth open and his eyes widening.</td>
<td>Bobby’s curiosity mirrors that of the viewers. We wonder what Carpenter is up to. Bobby’s reactions of disbelief then fear suggest he now realizes Carpenter’s true identity. Although the audience never sees Gort attack the soldiers, we understand through Bobby’s reaction that they have fallen to the ground as a result of Gort’s power.</td>
</tr>
</tbody>
</table>
Close
Ask students to comment on the music box shot. How many had noticed the music box and Carpenter’s reaction to it when they viewed the film the first time? The shot lasts only a few seconds and yet it is a critical moment in the film. Ask, also, why the director chose not to expand this scene—perhaps by showing Carpenter opening and closing the box a number of times. Or why didn’t he focus on Bobby starting and stopping the train, showing Carpenter how it works? Answers will vary. One reason may be that the director did not make the shot and its meaning more obvious to the viewer because he wanted to plant a seed and build suspense so that the viewer, like the characters in the film, would be surprised when the world actually did stop.

Activity B: Camera Effects—Rear Projection and Process Photography

Concept
Rear projection and the process shot are cinematic techniques that create the illusion of action being filmed on location which in fact the filming takes place in a movie studio.

Engage
Display Still 2-7: Studio Backlot. Ask students to describe what they see in this still image. Clearly this is a city street in an earlier period of history, given the style of the automobiles. But what city and what street might it be? Explain the still comes from The Day the Earth Stood Still. It is the street where Helen and Bobby live in the boardinghouse in Washington, D.C. However, none of the principal actors ever traveled to the nation’s capital to film during the movie’s production. This image is actually a set on a movie studio backlot in Century City (near Hollywood, California).

A studio backlot is a large acreage of land that a movie studio uses for filming. In this controlled environment, the studio can create a variety of sets—a western town from the 1800s, a bustling street in New York City, or in this case, a quiet neighborhood street in The Day the Earth Stood Still. Whichever scene is being depicted, however, the production designer is usually involved in making sure that the setting looks credible or believable.

Explore & Explain
- Define rear projection. This is a type of process photography where a previously shot film segment is replayed, or projected, onto a screen from behind while actors are photographed performing in front of the screen. The effect is to simulate that the actors are in a real location when in fact they are in a studio or on a set.

- Display Stills 2-8, A–B: In Arlington Cemetery . . . Sort of. Use these images to explain how a process shot works.

- Discuss Still 2-8, A. This shows actors Billy Gray and Michael Rennie on set in the studio. They are acting in a scene while the camera records their performance. The back wall is dark. If you look closely, you can see the faint outline of a screen in the background.

- Discuss Still 2-8, B. This is the final shot as it appeared in the film. The background of Arlington Cemetery has been projected onto the rear screen. But this background image is not static. If it were, the image would look unrealistic. Draw students’ attention to the two people in the background of the rear-projected image. In the movie, these people will walk off to the right. Movement in the background adds reality to the scene.
Ask students: Why would a director use rear projection rather than filming on location? Guide discussion to cover these two points: First, rear projection saves time and money. It is cheaper to film on a set than to send the cast and crew to a location. Also, filming at some locations requires permissions and fees. Second, the director can better control the lighting and the sound when shooting on a set rather than on location.

Review with students the meaning of backlot, as introduced in lesson 1, activity A and in the Engage section above. Then share with them this information:

In making The Day the Earth Stood Still, director Robert Wise interspersed footage filmed on the backlot of the production studio in Century City with footage filmed in the real Washington, D.C. By using film shot in both locations—the controlled environment of the backlot and the real city streets of the nation's capital—Wise and his production designer achieved realism. The joining of shots between the two different sets must be smooth so as to maintain credibility. The actual editing, or cutting and joining together, of the footage into the final film is the work of the film editor, whose role is discussed in lesson 4 below.

Distribute Screening Sheet 2-3: The Cab Ride Through D.C. Explain that in this film segment, they will have the opportunity to determine which shots were filmed on the backlot of the production studio, which were filmed in the real Washington, D.C., and which were a combination of the two.

View Film Clip 2-3: The Cab Ride Through D.C. After viewing, discuss student observations. Answers will vary. Recommended answers are below.

Answer Key for Screening Sheet 2-3: The Cab Ride Through D.C.

<table>
<thead>
<tr>
<th>Shot Description</th>
<th>Where or how was the shot filmed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Helen's cab pulls up in front of the boardinghouse. Helen jumps out and runs up the steps to the front door.</td>
<td>Backlot</td>
</tr>
<tr>
<td>2. Jeeps and military trucks round a corner and drive down a street.</td>
<td>On location</td>
</tr>
<tr>
<td>3. In a jeep traveling through the city, the colonel picks up his radio phone and issues an order.</td>
<td>Process shot</td>
</tr>
<tr>
<td>4. Military vehicles travel through the city. A jeep peels off at a corner and swerves into a parking position. In subsequent shots, other vehicles turn off on side streets to get into position for surveillance.</td>
<td>On location</td>
</tr>
<tr>
<td>5. Klaatu and Helen hurry down the steps and into the waiting taxi. The cab pulls out, making a right turn at the end of the street.</td>
<td>Backlot</td>
</tr>
<tr>
<td>6. As the jeep and staff car pull up in front of the boardinghouse, the soldiers in the jeep pile out and cover the entrance to the house.</td>
<td>Backlot</td>
</tr>
<tr>
<td>7. A cab travels along a city street. The dome of the United States Capitol Building is seen in the background.</td>
<td>On location</td>
</tr>
<tr>
<td>8. In the cab, Helen asks Klaatu where the meeting is going to be. He answers, “At the ship.”</td>
<td>Process shot</td>
</tr>
<tr>
<td>9. A crowd gathers around the military jeeps parked in the street in front of Helen’s boardinghouse. The colonel speaks into his radio phone, alerting his troops of a yellow cab with a man and woman in the back seat.</td>
<td>Backlot</td>
</tr>
<tr>
<td>10. A cab travels along a city street, passing a military jeep parked on the corner.</td>
<td>On location</td>
</tr>
<tr>
<td>11. Helen and Klaatu ride nervously in the back seat of the cab.</td>
<td>Process shot</td>
</tr>
</tbody>
</table>
Close
Ask students to freewrite for ten minutes, addressing these two questions:

*How does the use of set construction and rear projection change your understanding of what you see on screen, not only in movies but also on television and perhaps even in news broadcasts?*
*What do you know now that you did not know prior to completing this activity?*

**Stock Photography—How the Earth Stood Still**
One of the biggest challenges in making *The Day the Earth Stood Still*, said director Robert Wise, was creating the impression that the world’s machines had stopped. What special effects did the filmmakers use to create this impression? Go to The Story of Movies Web site, www.storyofmovies.org, to learn more.

**Activity C** Enrichment—Aspect Ratios and Widescreen Projection

**Concept**
One of the elements a cinematographer must take into consideration when filming is the size of the screen and its dimensions.

**Engage**
Ask: When was the television invented? Answers will vary widely. Many students will express the belief that television has always been pervasive in American lives and homes. Initially, in the years following the Second World War, owning a television set was a luxury. In the 1950s, however, television became America’s newest entertainment craze.
Share this information with students:
The television was a technological innovation of the late 1920s and early 1930s. It wasn’t until the 1950s, however, that televisions became commonplace in American homes. Throughout the 1950s, millions of televisions were sold each year. Families began staying home to watch televised programs. As a result, attendance at movie theaters dropped. In an effort to win back its audience, many movie studios began to experiment with how movies looked. One innovation that changed how movies looked—and therefore the viewing experience—was widescreen projection. Television sets were small. Movie screens were large and in the 1950s, they became even larger.

**Explain**
- Define *ratio*. A ratio is a proportional relationship between two different numbers or quantities. Write this ratio on the chalkboard or overhead projector: \( \frac{x}{y} \). Explain that \( x \) represents width and \( y \) represents height. Ask for a volunteer to use a ruler or yardstick to draw on the chalkboard or overhead projector a box where \( x = 4 \) inches and \( y = 3 \) inches (expressed 4:3). The box drawn should be one inch wider than it is high.
- Next, write this ratio on the chalkboard or overhead projector: 1.85:1. Again, the relationship being expressed is width to height. Ask for another volunteer to use a ruler to draw a box with these dimensions. Once again the box will be more wide than high.

Ask: Which box as drawn on the chalkboard or overhead projector most closely resembles a square and which resembles a rectangle? The 4:3 ratio is more square; the 1.85:1 is nearly twice as wide as high and therefore is more rectangular.
Define aspect ratio. Aspect ratio is a cinematic term that describes the shape of a movie screen. A standard screen has a 4:3 aspect ratio, which is also written more exactly as 1.33:1. A wide screen has an aspect ratio of 1.85:1.

Display Still 2-9, A: Ben Hur 1925. Explain that this 1925 film (directed by Fred Niblo), like most films made prior to 1950, was shot in standard screen format, 1.33:1.

Display Still 2-9, B: Ben Hur 1925, Distorted. This image illustrates what happens when a person attempts to stretch an image into a widescreen format without adjusting the aspect ratio. Emphasize how the distortion makes the image unrealistic.

Share this information with students:

One of the elements the director and cinematographer consider when making a film is the size of the screen.

Prior to the 1950s, most films were in standard screen format. The development of widescreen technology in the early 1950s greatly influenced filmmakers and changed visual storytelling. Here’s why. The screen size (and shape – square or rectangular) dictates, in part, how to compose each shot – that is, what to include in the frame and what to omit, and where to place objects and/or people in relation to one another.

Display Still 2-9, C: Ben Hur 1959. Explain that in 1959, director William Wyler remade the film Ben Hur using a technical process called Cinerama. This was a widescreen format. The image is rectangular.

Display Still 2-9, D: Ben Hur 1959, Distorted. Ask students to comment on how the image is significantly distorted. The actor and horses are squeezed into the frame. The distortion affects the viewer’s perception of width and depth. The shot looks crowded, and the horses look unnaturally thin. As a result of this distortion, the image loses realism and thereby credibility.

Define the phrase pan and scan. This is a technique used to transfer films shot in wide screen to a standard format, usually so that the film will fit the standard screen of most televisions. Panning means moving the camera’s line of vision to the right or to the left. Scanning is reproducing an image. When panning and scanning, a technician reproduces a movie by including only part of the image on each frame. Directors and cinematographers dislike having their films “panned and scanned” because it significantly alters the composition or visual information in the frame, often omitting details or changing how the viewer perceives a character or a setting.

Display Still 2-9, E: Ben Hur 1959, Panned and Scanned. Explain that this example demonstrates what might happen if the original widescreen shot were panned and scanned to fit a standard television screen. It’s impossible to keep all four horses in the shot at the same time. The scope and symmetry of the filmmakers’ composition would be completely lost.

Close

Have students bring photographs from newspapers and magazines to class. You may wish to distribute old newspapers and magazines from which students can select a few images. Ask students to measure the photographs, then determine what information would be missing if they removed a portion of the image, either horizontally or vertically.
Teacher Overview

In the final stage of the production process, the work of the film editor, the sound editor and the music composer begins. The actors have removed their costumes and make-up. The cinematographer’s cameras are still. While both actors and cinematographers worked on the set during production, they do not know exactly what the final film will look (or sound) like. How much of each actor’s performance will be used? Which camera angles and positions will the director select? Assembling the shots into scenes and the scenes into a “rough cut” of the film can take months.

Activity A explains the role of the film editor and introduces students to the editor’s vocabulary, including scene, cut, and montage. Activity B focuses on the role of the music director and/or composer and how this person helps to create a musical score intended to influence audience reaction. Because *The Day the Earth Stood Still* was a science fiction film, director Robert Wise wanted a soundtrack that might evoke another world. In Activity C, students learn about the first-ever electronic instrument, the theremin, and analyze how the use of this instrument contributed to the eeriness of Klaatu’s and Gort’s mission.

Learning Outcomes

Students will

- define what film editing is;
- identify the film editor’s tasks in making a film;
- define film editing terms, including raw footage, cuts, splices, continuity, pacing, rough cut, final film;
- understand the difference between a scene and a montage;
- identify three elements that make up a film soundtrack;
- identify the sound editor’s tasks in making a film;
- identify the music director/composer’s tasks in making a film;
- identify the functions of music in communicating to an audience.

Key Terms

(Note: Most terms are defined within the activity text that follows. You may also refer to the glossary.)

film editing, film editor, raw footage, cut, splice, continuity, pacing, rough cut, final film, montage, soundtrack, sound effects, visible sounds, invisible sounds, dialogue, music score, sound editor, sound mixing, music director, music composer, theremin
Concept
Film editing is the art of piecing together, or assembling, the final film. Working with the director, the film editor selects the best shots from the film's raw footage and assembles those shots into scenes, and scenes into a rough cut and then the final film.

Engage
Display Still 2-10, A: Inside the Hospital Room. Ask: Where is the camera? How do you know? The camera is to the left of Klaatu, just about facing the president's secretary. It is as if we are looking at the president's secretary over Klaatu's shoulder.

Display Still 2-10, B: Inside the Hospital Room. Ask: Where is the camera now? The camera's position has changed. Now the camera is behind and slightly to the right of the president's secretary. This time, it is as if we are looking over his shoulder at Klaatu.
Explain that these two shots are from the same scene in the film. Ask students to speculate on how the cinematographer was able to capture both images without having the camera be seen in either frame. Answers will vary. Some may suggest the director filmed the scene twice, once with the camera behind Klaatu and a second time with the camera behind the president's aide. Others may suggest that the director used two cameras at once.

**Explain & Explore**

- Share this information with students:

  
  *Usually, in the production stage, a single camera is not able to capture all the necessary shots to tell the story. Often, a director will shoot a scene from multiple angles or distances, focusing on different characters or points of view. After the production stage ends, the director works with the film editor in the editing studio. Together, they view the various shots of the same scene and decide which ones to use and in what sequence. Then they splice and join the shots together to form a single strip of film. Editing is a technology but it is also an art. An editor must know how to cut and splice film together but he or she must also select the best shots to communicate the director's vision in a creative and meaningful way.*

- Display and/or distribute **Graphic Organizer 2-11: What Is Film Editing?** Review the key points on the graphic organizer.

  **Raw Footage**

  Raw footage is all the strips of film photographed on the set. Very often the director will shoot one scene multiple times. He may shoot from different angles or shoot the scene using multiple cameras placed in different spots on the set. The director and editor will later select the best shots or segments from this raw footage to piece together the final film.

  **Cuts and Splices**

  A cut is a particular shot, or part of a shot, selected to use in the final film. The word cut is also used to mean the point at which one shot ends and another begins. A splice is how two pieces of film are joined together so that they follow smoothly, one into the other.

  **Continuity and Pacing**

  Continuity is the coherent way in which shots are spliced together so that the story not only flows smoothly from one shot or scene to another but also makes sense. Pacing is the timing of the assembled shots. Too many cuts may cause the story to become confusing to the audience. Too few cuts or too much time spent on one shot may slow the story down and cause the audience to become bored.

  **Rough Cut**

  The rough cut is somewhat like the first draft of a novel or a composition. All the parts are assembled and are in a particular order or sequence. The film, however, is not ready for viewing. The director and the film editor will review the rough cut and make necessary changes to improve the story. This may include making additional cuts and splices or even filming new shots to insert.

  **Final Film**

  This is the final cut, the film that audiences see in theaters and other viewing venues.

- Display and/or distribute **Graphic Organizer 2-12: What Does the Film Editor Do?** Review each of the editor’s tasks. Note that students will learn more about film editing in chapter 3.

- Remind students of the definitions for scene and cut. A scene is one or more shots in a series joined to communicate a unified action taking place at one time and in one place. A single scene can have just a few shots or many, depending on the story and the situation and the overall effect the director wants to achieve. A cut is the point where one shot ends and another begins. The cut from one shot to another is not accidental or random, but a carefully made choice by the director and the film editor.

- Distribute **Screening Sheet 2-4: The Listener and the Speaker.** Tell students to pay attention to the cuts in this scene.

  **Teachers Note:** This particular screening activity may be more effective if you stop the DVD at various points to discuss the cuts from one shot to another, relative to the dialogue.

- View **Film Clip 2-4: The Listener and the Speaker.** Discuss student observations. Recommended answers follow.
Chapter 2
Lesson Four

Answer Key for Screening Sheet 2-4: The Listener and The Speaker

1. Who is the listener and who is the speaker in this scene? Both characters speak and listen at various points during the scene.

2. The first shot begins when Mr. Harley enters the room. At what point in the conversation does this first shot end? That is, what does Harley ask Klaatu? “Have you been traveling long?”

3. There are a number of reaction shots in this scene. The first, however, occurs very early. It is shot number 3. On whom does the camera focus and what meaning is this reaction shot communicating to the audience? Harley. He expresses surprise, or some students may suggest shock, upon hearing that Klaatu had traveled 250 million Earth miles to come here.

4. Sometimes, but not always, the camera cuts to the person who is speaking. Why do you think the film editor does this? Answers will vary. One reason to do this is to communicate basic information, such as which character is speaking. Another reason is to reveal the character’s facial expression and/or body language so that the audience can interpret the speaker’s frame of mind. For example, is the character sincere or sarcastic, angry or disappointed?

5. Sometimes, but not always, the camera shows a person listening rather than speaking. Why do you think the film editor decided to show the listener and not the person talking? Answers will vary. Often the director and film editor wish to focus on the listener’s reaction, or—as is sometimes the case with Klaatu in this scene—lack of reaction. For example, at the point where Harley begins to address the space alien as Mr. Klaatu (after Klaatu had already told him it was just Klaatu), Harley corrects himself and the camera’s focus on Klaatu at this point shows him smiling slightly. At another point in the scene, Harley tells Klaatu that it would be impossible for him to meet with the heads of all the countries on the planet. When Harley delivers these lines, the camera is on Klaatu, the listener. Klaatu does not react. This is significant, showing that he is neither angry nor surprised at Harley’s statements. It also suggests that Klaatu is steadfast in his determination to complete his mission.

Think More About It

Perhaps the first time you viewed this scene, you paid attention to the dialogue in order to learn what was happening. You pieced together the narrative by listening and watching. How did your viewing experience differ this time? What did you notice that you had not noticed the first time? Answers will vary but ideally most students will have a better understanding of the relationship between shots and cuts and the dialogue and action in the scene.

Display Still 2-11, A: The Hospital Window. Ask students to describe what they see. Klaatu, dressed in a USA military robe, stands at a window. Next display Still 2-11, B: The Hospital Window. Ask students to describe what they see. Although the figures are small (suggesting we are viewing them from a distance), students should be able to recognize a nurse and a patient in a wheelchair, suggesting this is a shot of the exterior of the hospital.

Ask: Why did the film editor juxtapose (or place one after the other) the shot of Klaatu at a window with this shot of the hospital grounds? Explain that often a cut between two shots will communicate basic information, such as what Klaatu sees when he looks out of the window.
**Define montage.** A montage is a series of shots placed one after the other to create meaning and symbolic associations. Tell students that in this screening activity they will see an excellent example of a *montage*. They will also see examples of dissolves, a film transition technique where the image fades away and another image replaces it.

- Emphasize this important point: *A montage is not the same thing as a scene.* Both a scene and a montage contain shots. However, a scene communicates action occurring in a single place and time. The shots presented in a montage are unrelated literally. When juxtaposed, however, the images create symbolic associations and thereby figurative meaning.

- **Distribute** [Screening Sheet 2-5: “Man from Mars” Escapes!](#) Explain that this screening activity will help them better understand not only what a montage is, but also how it differs from a scene.

- **View** [Film Clip 2-5: “Man from Mars” Escapes!](#) After viewing, discuss students’ responses and observations. Recommended answers are below.

### Answer Key for Screening Sheet 2-5: "Man from Mars" Escapes!

<table>
<thead>
<tr>
<th>Shot</th>
<th>What is communicated directly?</th>
<th>What is being suggested?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INT. Hospital sitting room</td>
<td>The room is dark and empty. A soldier and a nurse enter; the nurse has a dinner tray; the soldier begins to unlock the door and discovers it is already unlocked.</td>
<td>Klaatu remains under military guard inside a locked hospital room. Or so the military believes. The soldier is surprised that the door is unlocked.</td>
</tr>
<tr>
<td>2. INT. Hospital room</td>
<td>The bed is unmade and empty. The nurse and soldier burst in and look around. The soldier looks in the bathroom.</td>
<td>Klaatu has escaped. The soldier and nurse are shocked.</td>
</tr>
<tr>
<td>3. INT. Captain’s office</td>
<td>The soldier reports to his superior officer that the “man from the spaceship got away.” The officer orders him to “get every available man.” He picks up the telephone.</td>
<td>The military is alarmed but immediately takes action to find the missing alien.</td>
</tr>
<tr>
<td>4. EXT. Night</td>
<td>Soldiers run from a barracks.</td>
<td>The military is responding quickly and urgently.</td>
</tr>
<tr>
<td>5. EXT. Night</td>
<td>Soldiers enter vehicles and drive away.</td>
<td>The military is on high alert and responding with a large force.</td>
</tr>
<tr>
<td>6. INT. Conference room</td>
<td>Officers sit at a conference desk, conferring over a map of the city.</td>
<td>Officers are planning a strategy to search the city.</td>
</tr>
<tr>
<td>7. EXT. Newsstand</td>
<td>At a sidewalk newsstand, a man picks up a newspaper and reads a headline about the escape of the “man from Mars.”</td>
<td>Klaatu’s escape is not withheld from the press and it makes front page news.</td>
</tr>
<tr>
<td>8. INT. Newsroom</td>
<td>A news broadcaster is reporting the news. In the background a woman enters the recording booth and gestures toward him.</td>
<td>The news broadcaster likewise reports on the alien’s escape.</td>
</tr>
<tr>
<td>9. INT. Parlor</td>
<td>A man and woman sit close to their radio.</td>
<td>They are listening anxiously, and we can assume—through the juxtaposition of the previous images—that they are listening to the news broadcaster’s report.</td>
</tr>
</tbody>
</table>
### Answer Key for Screening Sheet 2-5: "Man from Mars" Escapes! (cont.)

<table>
<thead>
<tr>
<th>Shot</th>
<th>What is communicated directly?</th>
<th>What is being suggested?</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. INT. Newsroom</td>
<td>In another newsroom, a broadcaster is speaking into a microphone.</td>
<td>The breaking news is widespread.</td>
</tr>
<tr>
<td>11. EXT. Street scene</td>
<td>Two men lean toward a car radio.</td>
<td>They are listening, we assume, to the radio broadcast.</td>
</tr>
<tr>
<td>12. INT. Newsroom</td>
<td>In still another newsroom, a broadcaster speaks into a microphone.</td>
<td>All news channels seem to be reporting the story.</td>
</tr>
<tr>
<td>13. INT. Kitchen</td>
<td>A family is having dinner, and the mother puts her finger to her lips to indicate the family should be quiet and listen to the radio.</td>
<td>The news is being circulated not only on the streets and on car radios but into families' homes as well.</td>
</tr>
<tr>
<td>14. EXT. Residential home</td>
<td>A mother hurried her two children inside the house, looking behind her as she starts to close the door.</td>
<td>The mother is frightened for the safety of her children.</td>
</tr>
</tbody>
</table>

### Think More About It

1. What information is directly stated and which shots in particular show this? Klaatu has escaped—Shots 3 and 7. Some students may point out that the news headline got the story wrong—Klaatu never stated what planet he was from.

2. Why doesn’t the director allow us to hear what the newscasters are reporting? Why does he use dramatic music instead? The juxtaposition of the images—Klaatu’s empty bed, the military rushing into action, the newscasters at work, the citizens listening intently—work together to create a nonverbal message: Klaatu is gone and the capital is in danger.

3. One purpose of a montage is to trigger an emotional response from the audience. In your opinion, what response did the director intend to trigger in the audience with this montage? Provide a reason for your answer. Suspense or apprehension about what may happen next.

### Close

Write this quote from director George Lucas on the chalkboard or overhead projector and ask students to freewrite for ten minutes on what they believe Lucas means:

*When I sit down [in the editing room], I don’t just cut a movie. I actually rewrite it and redirect it.*
Concept
A film’s soundtrack has three elements: sound effects, dialogue, and the musical score. The sound editor works with the director in creating a soundtrack to enhance the visual storytelling.

Engage
Write this phrase on the chalkboard or overhead projector: Foley artist. Ask students to suggest what a Foley artist is and how it might relate to the soundtrack of a film. Many students associate the word artist with visual arts and yet sound can also be creative and artistic. Explain that a Foley artist creates sound effects which the sound editor will incorporate into the soundtrack. Foley artists are often very inventive when creating effects. For example, to make a fistfight sound more realistic, a Foley artist might thump a watermelon for the sound of someone being punched, or snap celery stalks to sound like bones breaking.

Ask students to debate how important a soundtrack is to a film. If a film communicates through moving images, why have any sound at all? What does a film’s soundtrack contribute to the viewing experience?

Explain & Explore
Share this information with students:
Silent movies of the first two decades of the 20th century were not, in fact, completely silent. In some theaters, a musician played a piano or organ or an orchestra played in the theater’s pit while the moving images were projected on the screen. Even sound effects, too, were sometimes added by men performing “theatrics.” That is, they might duplicate the sound of footsteps running or a gunshot. The invention of the soundtrack eliminated the need for live performers in the movie house but the real innovation was hearing actors speak. The concept of adding dialogue to films, however, was not applauded by all.

Distribute Reading Activity 2-4: The Speakies. Either read aloud the passages or assign these for silent reading.

Guided Discussion
Passage 1: “Revolutionary Talking Movies”
1. What is the main idea of the first news passage? Speaking films would revolutionize the moving picture world, but they would not replace silent film.
2. Will Hays was a former politician who became the first president of an organization representing motion picture producers. Why is a statement from his office considered a reliable source to support the main idea of this news article? Since his office represents the people who produce, or make, films, he is speaking for them. If the producers don’t think talking films are a good idea, then surely they won’t make them.
3. What reasons do the illustrator Tony Sarg and the actor Robert Ellis give for predicting the failure of talking movies? They are not restful and that is one reason why people go to the movies, for rest. Also, the simultaneous combination of visual and audio illusion would confuse the audience.

Passage 2: “Americans Don’t Want Talking Movies”
4. In what way, if any, does the main idea of the second news passage differ from the first? The main idea doesn’t differ. This article, too, predicts that sound movies would not become popular.
5. Why might readers then (circa 1926) have considered Thomas Edison a reliable source for such an article? Some people may have known who Thomas Edison was – an inventor. Others might have simply relied on the fact that the newspaper was quoting this person as proof of his expertise.
6. Both articles use the words rest or restful as well as illusion. What does this tell you about how Americans viewed motion pictures in the 1920s? Answers will vary. Encourage thoughtful discussion by reminding students that the moving picture industry was relatively young, just two decades old. It was an entertainment industry and not yet considered a persuasive and pervasive communication tool.
Share this information with students:

Thomas Edison invented the Kinetoscope, an early type of moving picture machine. A person looked into a peephole in a cabinet and turned a crank. The sheet of images advanced in such a way as to suggest continuous motion. Edison also invented the Kinetophone. Essentially it was a Kinetoscope with a phonograph machine inside the cabinet. As the person viewed the images, they listened to the accompanying phonograph through two rubber ear tubes connected to the machine.

Although The New York Times quotes Edison (and others in the filmmaking and entertainment industry) as predicting the failure of talking movies, those predictions were wrong. Today a film's soundtrack is more than just an extra element tagged onto the movie during post-production. The soundtrack enhances the images, working together with them to suggest meaning and to influence audience reaction to those images.

Display and/or distribute Graphic Organizer 2-13: What Is a Soundtrack? As indicated on the graphic organizer, a soundtrack has three key elements that work together to convey meaning and to create an emotional response in the audience. Discuss the key concepts on the graphic organizer as recommended below.

Sound Effects
Effects are sounds that help to create mood and atmosphere as well as realism so that the audience experiences what the characters experience. Not all film sound effects are natural or realistic. This is particularly the case in The Day the Earth Stood Still. Gort's laser that melts metal, for example, required an invented sound to suggest realism.

Visible sounds are those that relate directly to the action on the screen. For example, a character slams a door and the audience hears the door slam. The visible sound must synchronize with, or happen at the same time as, the action. A door slamming a second before or after the action would disrupt the viewing experience.

Invisible sounds are those that are heard but not seen on the screen. For example, a character is standing on a bridge at night. The audience sees the bridge and the night sky and hears—but does not see—a ship's horn. Invisible sounds create the illusion of a real world beyond the boundaries of the image on the screen.

Dialogue
Lines of dialogue are spoken by actors. Dialogue reveals information about the characters, the setting, and the conflicts within the story. Dialogue can also reveal a way to provide expository details – background information about the characters relevant to the storyline.

Emphasize this important point about dialogue: Filmmakers use dialogue to advance the plot. But they are careful not to use dialogue to state the obvious – that is, what can be seen. If information can be communicated visually, then often the filmmaker will use images rather than words to communicate with the audience. For example: In the scene where Klaatu studies Professor Barnhardt's mathematical problem on the chalkboard, he does not state the obvious, telling Bobby that the professor's mathematics are wrong. He simply picks up a piece of chalk and marks where the professor is correct and adds some additional figures to help the professor solve the equation.

Music Score
Music, like sound effects and dialogue, has distinct functions. It can convey information and suggest meaning. Music can also trigger an emotional reaction in the audience. Some film soundtracks use popular or previously composed songs. Generally, however, the music score is original music composed for the film.

Display and/or distribute Graphic Organizer 2-14: What Does the Sound Editor Do? Review the tasks of the sound editor on the graphic organizer. Note, in particular, the term below.

Sound Mixing
Sound, or audio, mixing is the process of balancing all the layers of sounds on a soundtrack. Emphasize this important point: A soundtrack may include many different types of sounds—sometimes a half dozen layers and sometimes many more than that. Each track or layer must be balanced in terms of pitch (range) and amplitude (volume). Without this balance, the layers of sounds would just become noise.

Distribute Screening Sheet 2-6: Ears and Eyes. This screening activity has two parts. In part 1, the students watch the scene without any sound at all. In part 2, they view the scene with the soundtrack.

View Film Clip 2-6: Ears and Eyes, Part 1—Images Without the Soundtrack. Allow time for students to record their observations on the chart. Recommended answers follow.
Answer Key for Screening Sheet 2-6: Ears and Eyes, Part 1—Images Without the Soundtrack

<table>
<thead>
<tr>
<th>What image(s) suggest that Gort is attempting to heal Klaatu and has the ability to do so?</th>
</tr>
</thead>
<tbody>
<tr>
<td>He stands over Klaatu's body which he has placed on a flat surface. He moves his hand and arm in front of lights as if turning on a machine. The lights dim. A type of tubing cradles Klaatu's head. Gort seemingly stares down at Klaatu.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What image(s) suggest that Helen is experiencing pain?</th>
</tr>
</thead>
<tbody>
<tr>
<td>She presses her hands to her ears with a worried and pained look and turns away.</td>
</tr>
</tbody>
</table>

**View Film Clip 2-6: Ears and Eyes, Part 2—Images With the Soundtrack.** Discuss students’ observations. Recommended answers are below.

Answer Key for Screening Sheet 2-6: Ears and Eyes, Part 2—Images With the Soundtrack

<table>
<thead>
<tr>
<th>Describe the sound effects. Consider not just the type of sound but also the volume, pitch, and frequency of the sound.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' descriptions will vary. A low growling sound of horns and kettle drums begins. Then some students may say the sound becomes mechanical, a whirring, pulsing, or beeping that increases in frequency (speed) and, amplitude (volume) and also becomes higher in pitch (range). The sound effect rises to such a point that it might have caused some students to wince.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How do the sound effects and music work with the images to influence the audience’s reaction?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The movement of the music—from a slower, softer and lower pitch to a faster, louder, and higher pitch—suggests something is happening. The music enhances the otherworldly eeriness of the interior spaceship and the technology that Gort is operating. Suspenseful music ensues, and then higher, sweeter music, like strings. Many students will say that the soundtrack enhances our understanding that this is a mysterious event as well as a suspenseful one.</td>
</tr>
</tbody>
</table>

**Think More About It**

1. Near the end of this scene, the sound changes significantly. Describe this change and suggest why it changes at this particular point. There is a split second when the device buzzes and the high pitched sound stops. Underneath is a low buzzing sound. After the growing intensity of the high-pitched noise, the sudden change is a surprise. Helen looks at Klaatu. Neither she—nor the audience—know if Gort’s efforts have been successful. It is almost as if she and the audience are holding their breath, waiting to see what will happen next.

2. At what point does music begin to play? Why? What meaning does this music suggest? The music begins right after a buzzer sounds on the device, at the point where Gort moves away from Klaatu. All machinery has stopped. Klaatu is indeed breathing. Answers will vary as to the meaning of this music, but students should comment on the type of music. It is solemn and slow, not joyful or playful or romantic; then as the strings come in, it sounds mysterious.

**Close**

List a number of emotions on the chalkboard or overhead projector. These may include but are not limited to the following:

<table>
<thead>
<tr>
<th>Emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
</tr>
<tr>
<td>Fear</td>
</tr>
<tr>
<td>Pride</td>
</tr>
<tr>
<td>Pain</td>
</tr>
<tr>
<td>Sadness</td>
</tr>
<tr>
<td>Disappointment</td>
</tr>
<tr>
<td>Loneliness</td>
</tr>
<tr>
<td>Happiness</td>
</tr>
</tbody>
</table>

For each word, ask student to suggest a sound effect (not music) that would convey this emotion. Breaking glass, for example, might trigger a reaction of fear.
Concept
The music director and the composer work with the director to determine where and how music might enhance the visual storytelling. To do this, the composer and music director keep two key goals in mind: Music, like sound effects and dialogue, can convey information and suggest meaning, and music can trigger an emotional reaction in the audience.

Engage
Share with students a riddle: What instrument has no keyboards, no fingerboards, no strings or valves or hammers. And yet, despite nothing to press or pluck or blow into, a person can still play it and create music.

Students should have interesting guesses, but most likely they will not have heard of the instrument. The answer is the theremin, an unusual instrument that was used in The Day the Earth Stood Still.

Display Still 2-12: Music from the Ether. This image shows Professor Leon Theremin, a Russian physicist, who invented the instrument in 1919, which he called the aetherophone because it was music created from ether, or air. Theremin chose the name because the performer plays the instrument not by touching it but rather by moving the hands through the air around the theremin.

The instrument has two metal antennas. The distance from one antenna determines frequency, or pitch, and the distance from the other determines amplitude, or volume. In this image of the professor, his right hand (near the vertical antenna) is controlling the pitch and the left hand (near the wire loop) is controlling the volume.

Although students may not be familiar with this particular instrument, they should have some knowledge of electronic music. The theremin, named after its inventor, was perhaps the first-ever electronic instrument. Those who wish to learn more about radio frequencies and the science behind the theremin can find more detailed explanations on various Internet Web sites. They can even learn how to build their own theremin.

Explain & Explore

- Display and/or distribute Graphic Organizer 2-15: What Does the Music Director/Composer Do? Review the tasks of the music director/composer on the graphic organizer.

- Distribute Reading Activity 2-5: The Sound of Science Fiction. Discuss the passage using the questions below.

  Guided Discussion
  1. Because The Day the Earth Stood Still was set on Earth, what challenge did the director face? Creating credibility that the visitor was from outer space
  2. Why did composer Bernard Herrmann decide to write music that used the theremin? It produced an unusual sound, one that pulsated and could heighten suspense. Also, most audiences were unfamiliar with the instrument and its sound so the music could suggest that it emanated from outer space.
  3. Robert Wise stated that the background score can contribute a great deal to a movie. What does he mean? Answers will vary but should focus on the main idea that the music enhances the storyline, helping to create mood or atmosphere and influencing how the audience responds while viewing the film.
  4. Why was the music of the theremin called “the sound of science fiction”? Many other science fiction films began to use the instrument as well and for the same reasons that Herrmann had—to suggest a supernatural or extraterrestrial setting or mood.

- Distribute Screening Sheet 2-7: How Music Communicates.

- View Film Clip 2-7: How Music Communicates. Stop the DVD between each segment and allow time for students to record their observations, then discuss. Recommended answers follow.
**Film Segment**

**Images**

What do you see?
List specific details.

**Musical Score**

Describe the music.
What instruments do you hear? How is it played—fast, slow, loud, soft, etc.?

**Viewer Response**

What, if anything, does the music make you feel or think or remember?

<table>
<thead>
<tr>
<th>Segment</th>
<th>Images</th>
<th>Musical Score</th>
<th>Viewer Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A— Arlington Cemetery</td>
<td>monuments, tombstones, Bobby taking off his hat, people strolling, park bench</td>
<td>Answers will vary but should focus on the soft sounds of a muted trumpet and clarinets. The music is slow, solemn, melodic.</td>
<td>Answers will vary. Some students might suggest it is sad or melancholy or patriotic. Accept all reasonable responses.</td>
</tr>
<tr>
<td>B— Inside the Spaceship</td>
<td>circular hallway of sorts, criss-crossed with shadowed lines; an inner circular room without furnishings but with lights, rods or tubes, and screens; Klaatu passes his hand over lights or controls, observes lights on a screen, speaks alien commands</td>
<td>Answers will vary but should focus on a sort of bell or xylophone that seems to climb the scale and go down again. Once Klaatu enters the inner chamber, the theremin begins a tremolo and continues with a gliding sound over the earlier music.</td>
<td>Answers will vary. Some students might suggest the music sounds tentative, like moving on tiptoes. Eerie, mysterious, suspenseful are probable responses.</td>
</tr>
<tr>
<td>C— Earth at a Standstill</td>
<td>cars with hoods up; buses stopped; city streets; people looking about dumbfounded; people praying; printing press and factories frozen in place; a train stopped on the tracks; woman removing laundry from washer; boat motor, soda fountain, cow milking machine, roller coaster, and tractor all not working; drawbridge stuck open. Students should note the international scenes, as well: Times Square in New York, Big Ben in London, the Arc de Triomphe in Paris, a Russian street.</td>
<td>Answers will vary but should include the periodic loud clash of cymbals and blaring brass, dissonant music. A few people’s voices are heard. If students listen carefully, they will also hear the theremin at points in this sequence.</td>
<td>Answers will vary. Some may say the music makes them think of danger, alarm. Others may respond by comparing the clashes of cymbals to thunder. Accept all reasonable responses.</td>
</tr>
</tbody>
</table>

**Think More About It**

The music varies in these three examples. Different instruments are used and the amplitude (volume) and frequency (pitch) differ as well. However, what musical theme is repeated? Describe this theme in your own words, as best you can. The musical theme is repeated, drawn out. Notes rise and fall. Some students might express it as baa-baahhm, baa-baatmm. Answers will vary, however, as not all students have complex musical knowledge. Accept all reasonable responses.
Close

Discuss with students the qualifications or knowledge necessary for a person to become an effective music director or composer for film. Obviously, the ability to write music is one. However, extend discussion to explore what other fields of study are useful if not necessary. Understanding symbolism, for example, and dramatic structure would be very useful. So, too, would be knowledge of psychology and the effect music has on human behavior and moods. Art, science and technology—these, too, are fields of study that a composer might tap in order to create an effective score that adds levels of meaning to a film.