" My first job in the film industry included "sliming" monsters with methylcellulose and emptying chemical toilets in motor homes on the set of Humanoids from the Deep. *Of course, my responsibilities have changed considerably since then, but I'll never forget how important it was to learn every conceivable aspect of motion picture production."*

—Gale Anne Hurd
    Producer, Terminator

Production Cast & Crew

- **Art Production**
- **Acting**
- **Costumes and Makeup**
- **Other Important Responsibilities/Jobs**
- **Explore: Continuity**
- **The Camera**
- **Lighting: a Bright Subject**
- **Sound**
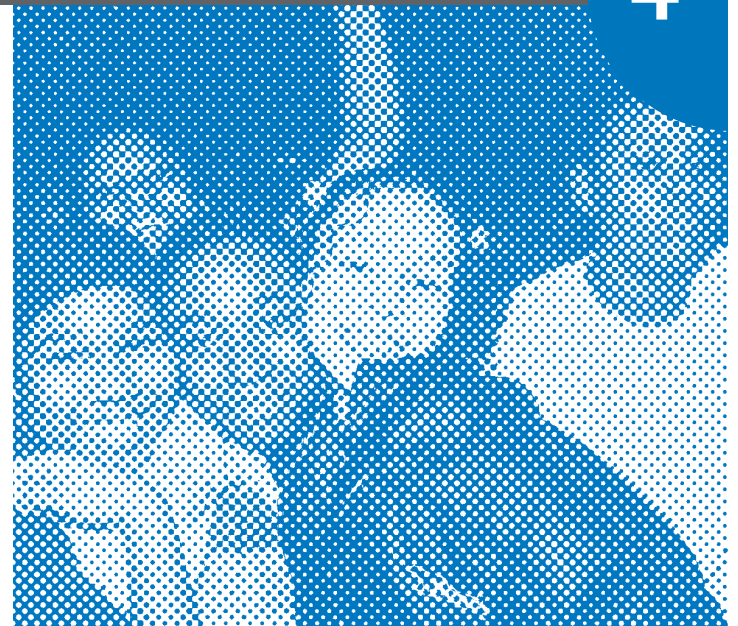
ART PRODUCTION

The art director is in charge of art production, working with the director to make sure the **set** conveys the story that the director is trying to tell in that scene (the set is the place where a scene is shot). It can be a pre-existing place, like McDonalds, or a place that is constructed and decorated to look like a McDonalds. The art director designs the set. He/she can make a backyard or a local park look like a jungle. As with many jobs, planning ahead is key: looking at every single scene that is going to be shot to figure out how to make each scene look right.

Props is a term that is short for "properties," and they include all the items on a set. Props give the audience information about what is happening in the film, and important details about the characters. For example, two friends are roller blading by themselves, and they see each other at the park. They have a conversation while drinking water, and then one looks at her watch and realizes she has to get going. In the least, two bottles of water, a watch, and two pairs of roller blades are needed.

You have probably seen the *X-Files* and *Friends* on TV. What types of props might you need for these shows?

X-Files Props

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Friends Props

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How do you decide which props to use?

Filmmakers use props and settings that reveal details about the characters.

Questions to consider:
- How can you best tell the audience about the character and his or her world?
- What would an apartment with almost no furniture say about your character?
- How will you use color?
- Does a neon-pink book bag tell the audience anything about your character?
- What props convey important information?
- Would your character seem more nervous if he wipes his face with a handkerchief every five minutes?

How can you get ideas for props?
Try looking through magazines and books; watch old movies.

What sort of props might you use to create:
The living room of a family of very tall people

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A modern-day witch's attic might have

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Where do you find props? Thrift shops, garages, storage areas in your home, and yard sales are excellent places to look.

A Movie to Watch

*Edward Scissorhand*s, directed by Tim Burton.

This movie is especially good for its use of props, makeup, and lighting.

Edward Scissorhands
Kevin (Robert Oliver, right) dazzles his classmates by inviting Edward (Johnny Depp, left) to display his talents during "Show and Tell" in Twentieth Century Fox's *Edward Scissorhands*.
Copyright ©1990 Twentieth Century Fox Film Corporation. All Rights Reserved.

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EXPLORE:
making a room into a set

You are the art director for a scene in which there are four characters, all high school students. They are meeting in their school to discuss this year's yearbook. Unfortunately, your school does not have a yearbook office, so you have to turn a regular classroom (where the scene is going to be shot) into something that looks like one. What kind of props could you use to make it look like a yearbook office? Remember: The audience will see only what the camera shows them, so the whole room does not need to be "dressed" as a set.

" I try to live by Lou Nizer's words... 'A person who works with his hands is a laborer. A person who works with his hands and his head is a craftsman. A person who works with his hands, head, and his heart is an artist.'"
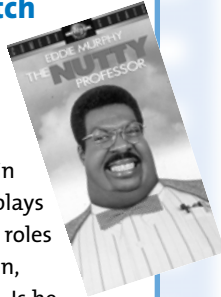
—Syd Litwack
   Art Director, Head

Make a props list:

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Acting

How often have you watched actors on a TV show or a movie, and thought to yourself, "I could do better than *that*!" It's very difficult for most people to be good at acting. Acting is a skill, and of course, it's very important in the filmmaking process. A director can do everything right, and a cinematographer can have every camera shot perfectly framed, but if the acting is really bad, the film will not be very good.

What makes a good actor?

Just like people, characters often say one thing, but mean something else. In real life, people experience this every day. A director, with the actor, decides what the character really means — what he/she really wants — regardless of what the character says in the dialogue.

Usually, the best actors are those people who can really *get into* his/her character's head and act *like* that character, leaving the audience wondering where the acting stops and the real person begins. The real person (the actor) seems to become that character. While acting is hard work, good actors make it look easy.

Most professional actors have spent many years studying acting. They take classes, watch and study films, plays, and television programs, and read a lot of books. They educate themselves so that they have the background information that helps them play a particular character. If an actor has never been in a war, and has to play a Vietnam veteran, his or her research would include talking with real veterans.

Actors should read the script several times, think about the character's history, and daily activities, and ask:
- Who is my character?
- What does my character want and why?
- What motivates my character?
- What does he or she wake up thinking about or wishing for?
- Did my character have a happy childhood?
- What does he/she do on weekends?
- What kind of music does he/she listen to?
- Has he/she ever been in love?

Filling in these details for yourself will help you make your character real and believable. **If you are the director, you need to know about all the characters in the film.**

A Movie to Watch
The Nutty Professor, directed by Tom Shadyac.

In this movie, the main actor, Eddie Murphy, plays many of the different roles himself, including men, women, and children. Is he able to convince you that he is actually these other people? While makeup really helps, being able to play lots of different characters is a real talent that only some actors possess.

" *Do your homework, show up prepared, and always rely on your instincts.*"
   —Anjelica Huston
      Actor, Prizzi's Honor

EXPLORE:

acting in character

Pick one of your favorite movie characters and practice being that character.

How would your character eat breakfast?

How does he/she brush their teeth?

What kind of driving style would your character have?

How does your character act when he/she is attracted to someone?
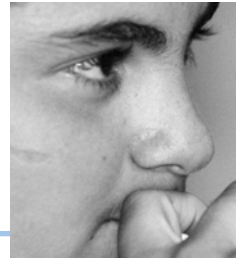
EXPLORE:

observation exercises for the actor

Try creating a character observation notebook for yourself. Watch how people behave. Write down small character sketches of people you observe. Write down what you think that person is probably like, and why you have come to that conclusion. Notice how they carry themselves, what kind of clothes they wear, what they eat, how they eat, etc.

Character:
Your conclusions about the character:

What were the clues that led you to those conclusions?

Character:
Your conclusions about the character:

What were the clues that led you to those conclusions?

Acting is doing

Acting is *doing*. It is *showing* how your character feels. Sometimes an actor expresses the feelings of a character in subtle ways. Being subtle is the opposite of being hyper or extreme. The director often guides the actors, letting them know if they need to be more understated, or more extreme.

For instance, a scene where two characters, Luis and Gail, are having a conversation. Luis does not want to talk to Gail, but he wants to end the conversation without hurting her feelings.

What can Luis do? Could he act like he is in a hurry to get somewhere on time? Think of two things he could do to indicate that he wants the conversation to end:

1. _____

_____

2. _____

_____

Conflict - Opposing Goals

All good drama has conflict. The scene above might be even better if Gail tried to counter Luis' attempts to end the conversation. One character wants to leave, and the other wishes to continue the conversation — these opposing goals provide conflict.

How to create and solve conflict are some of the most important choices that directors and actors make. The scene with Luis and Gail could go many different ways. Conflict can involve war and weapons, but the non-physical kind of conflict, like the one with Luis and Gail, can be the most intriguing.

Next time you watch a movie, see if you can identify the goals of the characters, and which of those goals conflict with each other.

Acting involves reacting.

Actors play off of what other actors do, using body language as much as dialogue. When actors play off each other especially well, it is called having "chemistry." Without chemistry between characters, a movie is boring.

Example: You are an actor in a scene where another actor is going to scream. Even though you have rehearsed this scene ten times already, you have to react to the scream as if it were the first time. Your reaction to a scream should show in:

- your face. Would it be a shocked expression or a scared expression?
- your body. Would you stiffen up or turn suddenly?
- your actions. Would you cringe or scream as well?

Whatever you do should seem natural.

Another thing to remember is that acting is constantly changing, evolving. Every time you rehearse or shoot a scene with other actors, it will be different. They will say their lines a little differently, or make a new facial expression, which might call for a different type of response from you. That is why it is so important to pay attention to everyone. Most famous actors listen very well. They pay attention to the little things the other actors do and say.

" After sitting through a lifetime of failures and a few precious successes, what is the raw basic wisdom that I have learned? Without the help of Confucius, I'll try to actually tell you something useful. For one, you have to be willing to die trying. Being born into the business, one might say I had a leg up on most. But I'll tell you, the part of my life filled with rejection after rejection still outlasts the part of my life that I've actually worked as a director and actor.

The drive you must have needs to border on obsession. Where does one find this? I found this drive at a rather young age. It was out of my early social awkwardness that I discovered the incredible power of film. As a young teenager, I was picked on and bullied by more together and popular kids. I was consumed by the embarrassment and failure that I endured. So I began making revenge fantasy movies with Super Eight cameras around New York City. With titles like Murder in the Park, *I would make movies acting out terrible murders and ass whoopings of my adolescent assailants. More than therapy, I realized the power these images held. When my two-bit punk adversaries saw these films, they were visibly shaken, more so than their constant taunting had shaken me. At a young age, I got to witness first hand the visceral power the medium held as these kids watched, mortified at their defeat. I had murdered them on film, and they had completely lost face to a kid they had always terrorized with ease. Of course, they kicked my ass immediately afterwards, but that only proved the great effectiveness of my little films further. It was after seeing this that I fell in love with the medium, with the idea of being able to affect people in a way that they could not even control. I saw that movies themselves took people on rides that they had no choice but to give in to. I have never found or seen anything else like it.*

Recognize your influences and if you don't have any, find them. There is no greater teacher than following the career and body of work by someone you admire and respond to. Make your work personal. There is nothing worse than making a movie about being homeless when you've never gone hungry for longer than a couple of hours. Die a student, not a teacher, and never, never, take yourself too seriously."

—*Ben Stiller*
    Actor and Director,
    There's Something About Mary

Costumes and Makeup

Costumes, makeup, and hair styling can help tell your story. Imagine the agents in *Men in Black* without their black suits and sunglasses. Imagine a war movie without the uniforms, or *The Addams Family* without their makeup. Would the story of *Austin Powers: The Spy Who Shagged Me* be complete without the transformation of Mike Myers through costume, hair, and makeup? Costumes and makeup help tell the movie's story by giving the audience visual details about the characters.

The hair, makeup, and costume people are in charge of *visually* transforming the actors into the characters they are playing. An actor will act the part but these folks are the ones who make him/her *look* the part.

Clothes alone can tell an audience a lot about a character. Think about the people you see at the mall or on your street. You probably make a lot of quick judgments about people based on the clothes they wear. Clothes help you decide if someone is nerdy, trendy, conservative, rich, uptight, hip, funny, young, old-fashioned, or boring. Audiences do the same thing when they see characters in movies.

Different clothes and makeup make the actors themselves feel different. Do you feel more attractive in certain clothes? More relaxed in sweats? The way an actor looks can have a real impact on his/her performance.

The right costumes will **define your characters** before they ever say a word of dialogue.

Can you imagine Darth Vadar without his mask and cape? How would the feeling of the movie *Star Wars* been different if the main characters had worn "normal" clothes, like jeans and t-shirts?

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A Movie to Watch

Mrs. Doubtfire, directed by Chris Columbus.

Robin Williams, who plays the lead character, has to be very careful how "she" talks and interacts because "she" is actually a man.

" Costume design at its best uses silhouette, color and texture to create a character, define a time and tell a story."

—Deena Appel
   Costume Designer, Austin Powers: The Spy Who Shagged Me

Men in Black
Copyright ©1997 Columbia Pictures Industries, Inc. All Rights Reserved.
Courtesy of Columbia Pictures.

Creating Average-Looking Characters

If your characters are people living in present-day America, doing their hair, makeup, and costume will be pretty easy. You can probably pull their costumes from their own closets, or borrow them from friends.

If there is something you cannot find, check out the Salvation Army and other thrift shops. Sometimes, if you explain it's for a school project, the store manager will "rent" the clothes to you for a reduced price. Ask friends and relatives if you can borrow props and clothes for costumes. Keep in mind that clothes look very different depending on how they are put together, and what accessories (baseball caps, jewelry, purses, backpacks) you use.

For example, what if your character is a 40-year-old man, who wears a formal suit? But, he also wears tennis shoes. What will the tennis shoes tell the audience about the character? Experiment with different combinations of clothes and accessories.

If you are the costume designer on a movie that takes place in the past, try going to the library for ideas on clothing. Take a look at books on the history of costume as well as old magazines (a good one is *Life Magazine*).

Put on the Makeup

Everybody in the cast will probably need some form of makeup, at least powder (yes, even the guys); otherwise, their skin will look too shiny on film.

A face that has a lot of makeup on it may look a little overdone in real life, but will probably look normal on film. Keep this in mind when applying makeup and experiment with how your characters look on film.

The makeup artist should have a makeup session with every actor before the shoot begins and should be sure to take notes. When the makeup artist finds a look that he/she likes, he/she should write down the cosmetics used and, if possible, should take photos of the actor. That will help in re-creating the same look for the shoot.

Usually the director wants to see all the actors in costume and makeup before the shoot, to make sure the makeup choices support his/her vision for the film.

making someone look like... someone else

Let's say you were the makeup artist on a movie and had to make some of the kids from your school look like the characters they are supposed to play. Here is some information about the characters in a school scene. There are four characters — two girls and two boys — and all of them are in the 8th grade.

JILL studies a lot, but she's a C student who is trying to fit in with the "cool" kids.
LATOYA is very popular, doing well in school, and she's a good runner on the track team.
JOHN is a straight A student who wishes he were more athletic — he often gets harassed by other guys.
DERRICK is the top athlete in the school.

- What would each of these students look like?
- What kind of clothes would each one wear?
- Would they wear glasses?
- What kinds of books and school supplies would they carry?
- Would they wear jewelry and makeup?

Make a list of makeup and clothing you would need for each character:

JILL:

LATOYA:

JOHN:

DERRICK:

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Before makeup

Makeup artist at work

After makeup

# Creating critters and creatures

Transforming someone into a non-human character is a lot tougher than doing makeup and costumes for a human character. It is also a lot more time consuming.

If your movie has aliens or monsters, you have to decide what they are going to look like:
- What color is their skin?
- Do they even have skin, or is it fur?
- How many arms and legs do they have?
- What is fashionable on their planet?

If you can, *start with some drawings.* It is easier — and less expensive — to experiment on paper than it is on people. Let's say your assignment is to create a creature that emerged from a hole in a neighbor's backyard. The only thing you know about the creature is that it's supposed to be scary looking, but in reality, it is a friendly creature.

**Sketch some of your ideas of what that creature could look like here:**
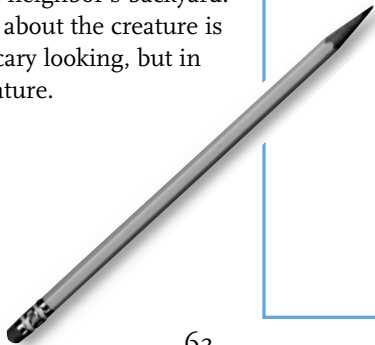
and here:

To spark your imagination, do some research. Look at science fiction and comic books for ideas. A trip to the fabric or hardware store will give you some ideas for supplies that you can use.

Use your imagination. You can find a lot of the stuff you need for costumes at home. Look at everything as possible material: trash bags cut into strips, aluminum foil, toilet paper tubes, cellophane wrap. Search your attic or basement for old Halloween costumes. Check out your local thrift shops and craft stores. **Be creative.**

If your creature requires special makeup, you should *experiment on the actor's face* until you are satisfied with how it looks. Take pictures or notes of the different things you try, so you have a record of what works and what does not. Once you have it right, and the director agrees, practice putting it on the actor until you can do it quickly. Figure out how long it takes to apply the makeup, so the actor knows how early to show up on the day of the shoot.
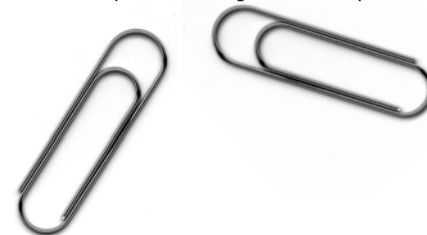
Before

After

Costumes and Makeup at the Shoot

Bring everything you can possibly think of to the shoot. You never know what you might need, so be prepared.

Here is a list of some costume and makeup basics. Don't leave home without them!

Costume Kit
- Needle and thread
- Scissors
- Toupee tape — clear, double-sided tape
- Duct tape — lots of costumes in movies are taped or pinned together
- "Wet Ones" moist tissues — the kind for babies. They're great for emergency cleanups like dirt or makeup on a collar
- Ironing board and iron (if you can)
- Safety pins — large and small

Makeup and Hair Kit
- Powder
- Blush
- Mascara
- Lipstick and lip gloss
- Makeup brushes
- Makeup remover
- Bobby pins and hair bands
- Comb and brush
- Box of tissues
- Baby powder

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During shooting, keep an eye on the cast to make sure their makeup and costumes are holding up. Is somebody sweating? If so, powder their faces between takes. Has their mascara smeared? Stop and clean it up.

Actors should look exactly the same for each take, and their look needs to stay consistent — or as consistent as it is supposed to be — throughout the movie.

Often, a scene can take more than one day to shoot. If possible, take a photo or make notes of each actor at the end of every day of shooting. That way, when shooting starts the next day, you can make sure the actor's hair looks the same, and notice things like whether his shirt was tucked in or not.

This is called continuity, and it is really important! Things need to match up from shot to shot, or the movie will look inconsistent.

If scenes are shot out of order, it is critical to take notes and/or photos so you can be sure the actors look right for whichever scene is being shot. Was the bruise on his left or right cheek? Were her glasses on or off? Was she wearing that watch yesterday?

These details may seem small, but if just one of these things changes from scene to scene, it will distract your audience.

Other things to consider

- Can everyone in the cast move comfortably in what they are wearing?
- Does your story take place in one day, or over several days? Sometimes the only way the audience can tell it is a new day in a movie, is when the characters change clothes. You can sometimes make just a little change (put a sweater on, or take one off) to make it look like a different set of clothes.
- How does the cinematographer want the scene lighted? Lighting greatly affects makeup. *Avoid solid white clothes*. They reflect too much light for the camera. If you really want to use white clothes, use clothes that are off-white.

EXPLORE: continuity

It is the first day of shooting and the director has started by shooting the final scene of the movie. In this scene, the character, a 16-year-old girl, is going home after a long night at a party. Her dress is crumpled, her makeup is faded and smeared, and her hair is messy.

The next scene to be shot is the first scene of the movie, when that same girl is just entering that same party.

You are the costume designer. What would you have to do to get your actor ready for these scenes? After party scene:

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The beginning of the party scene:

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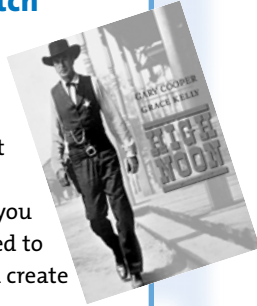
Other Important Responsibilities and Jobs

Gaffer
Also known as the chief lighting electrician. The gaffer is in charge of all the electrical wiring and equipment.

Grip
The grip is responsible for the adjustment and maintenance of production equipment on the set. Typical duties include laying dolly tracks and erecting scaffolding.

Location Scout
The location scout is in charge of finding the best spot to shoot each scene.

Set Designer
The set designer works with the art director to ensure that the location looks right for the shoot.

Sound Engineer
The sound engineer figures out what kind of sound effects and/or music can be used to enhance the movie. He/she also creates those sound effects and makes sure they are recorded. This person is also in charge of making sure the overall sound of the movie is correct, including the dialogue.

The Camera

Obviously, the camera is a critical piece of equipment in moviemaking. You should be familiar with how to operate a camera and get to know the different ways that video and film cameras are used to tell a story.

On a professional movie set there are three key people on the camera staff:

1. The **cinematographer** or **director of photography** is in charge of the camera staff, lighting the set, and making all the important decisions about using the camera.
2. The camera operator films the scene.
3. The gaffer or chief electrician works with the cinematographer to light the set.

Usually, the director decides what the shot is going to be, then, with the advice of the cinematographer, decides what angle to shoot from. On a small film, the cinematographer usually operates the camera as well.

Using a Video Camera

Each video camera is unique. The following instructions are basic to most video cameras. But after reading the information in this manual, check out the *manufacturer's instructions* for the camera you are using. Then try the different camera moves and positions suggested in this chapter.

Some cameras and recorders are separate and must be connected with a control cable. Other models combine camera and recording functions in a single camcorder.

While cameras and recorders may have dozens of buttons, knobs, and other controls, you only need to master about seven of them to begin videotaping. They include: POWER, TAPE EJECT, VIEWFINDER, WHITE BALANCE, ZOOM, FOCUS, AND RECORD.

Additional functions vary from model to model: MACRO (close focusing), low light GAIN, BACKLIGHT compensation, and HIGH SPEED SHUTTER and DATE/CLOCK timers. Some are more useful than others depending on the type of work you do. They will be easier to master once you are familiar with the basics.

The following checklist outlines the setup procedure and explains essential video functions. It is followed by a list of other important camera functions.

For the field- camera exercise (shooting outdoors), complete all the steps on the checklist and operate all the functions of the following list:

1. Set up tripod.
Loosen the lock knob of the handgrip and adjust it to the correct position and lock it down. Loosen the lock knobs on all three legs of the tripod and spread the tripod legs apart. Grasp the head of the tripod and pull straight up to desired height. Lock all three legs down, then make any fine adjustments by centering both leveling bubbles by unlocking and adjusting the legs of the tripod, one leg at a time.

2. Attach the tripod adapter to the base of the camera.

3. Attach the camera to the tripod.
Make sure the camera is locked onto the tripod and the PAN and TILT locks are locked before letting go of the camera; otherwise, it could fall and break.

4. Set the viewfinder.
Rotate the viewfinder down and towards you. Do not force it.

5. Connect the battery or AC adapter.
Insert a charged battery into the battery compartment. Put it in until it slides into place. *Do not force it.* Or, connect the AC adapter by plugging it into an electrical socket, if available, and into the unit.

6. Turn the power on.
If you are using the AC adapter, turn it on first. Then push or slide the POWER switch on top of the camcorder.

7. Set the iris.
The iris controls how light or dark the picture appears by governing the amount of light that enters the lens. Set the iris on AUTO or open it manually until the picture looks right.

8. Set the white balance.
Auto: Set the while balance selector to the AUTO position. The white balance is automatically adjusted as the illumination changes.
Manual: Set the white balance selector to the MANUAL position. Aim the camera at a purely white wall or sheet of paper so that the white space fills the screen. Press the white set button. The indication **white** in the viewfinder will disappear. *You must always re-white balance when moving from outdoors to indoors and vice versa.*

9. Set the focus.
Zoom in to a close-up of a subject. Set the focus button to manual. Use your fingers to grasp the focus ring (which is the forward most segment of the lens barrel).

Rotate it for the sharpest image in the viewfinder. The lens will stay focused at that distance, even if you zoom in or out.

You may find auto-focus useful, however, in some situations, the camera's continual refocusing can be annoying. Auto-focus will give unusable results if the subject is not in the center of the frame or when there is movement between the camera and the subject. To auto-focus, set the focus mode selector to AUTO. Use the zone selector button to determine if you want to focus on a small, medium, or wide portion of the frame.

10. Zoom

The zoom lens can be adjusted to get various shots — wide, medium, or close-up. The handgrip has a two-part button for powered zoom between **wide** (W) and **tight** (T). The power zoom has two speeds. Press either the (W) or the (T) side of the button *lightly for a slow zoom*. Press them down *firmly for a faster zoom*. There is also a manual zoom lever on the zoom right, which may move less smoothly, but faster.

11. Record

There are two red record buttons. One is behind the handgrip where your thumb falls when shouldering the camera. The other is on top of the grip where it is easier to reach when shooting on a tripod.

Press either button once to begin recording, and once again to stop. You do not have to hold it down. Look for an indicator. *A red light in the viewfinder means that you are recording.* You should also notice the counter numbers changing. When you press RECORD to stop shooting, look again in the viewfinder to double check that you are not recording any further.

12. Audio

Connect the external microphone into AUDIO CHANNEL TWO (R). Ambient sound (the sound that's all around you, like traffic in the distance or an airplane flying overhead) will be recorded from the built-in camera MIC (short for microphone) on AUDIO CHANNEL ONE (L). Set the audio selector button (on the back of the camera) to HI-FI MIX. Adjust the audio level from -3 to OdB for speaking. Watch the audio indicator and monitor the audio with headsets.

More Camera Features

Standby

Cameras can be put on STANDBY to save battery power while keeping WHITE BALANCE. With camcorders, using STANDBY also avoids wearing out one spot on the paused tape. You can select STANDBY or the camcorder will do it automatically after five minutes of waiting without recording. Press the STANDBY button again to switch to the RECORD PAUSE MODE or start recording again by pressing either red record button.

Macro

This converts your zoom lever into a close-focusing lever. Move the zoom lever to the wide-angle position until it stops. Then press the green MACRO button on the lever so it can move further into the macro range. To focus in macro, slowly move the lever. Macro will allow you to fill the screen with very small objects and is handy for copying small photos, newspaper headlines, or other illustrations.

Record View

By pressing the left camera search button once while in RECORD PAUSE MODE you can replay the last three recorded seconds. If you hold down either (+ or -) camera search button, you can search forward or backward on the tape. To playback a scene, keep the camera search (+) button pressed.
Make sure to search forward when finished to avoid recording over footage.

This function can wear on tapes and the camera-only use when necessary.

Gain

In low-light situations, GAIN will brighten the picture electronically. However, there is some trade-off in picture quality, so leave it at zero setting unless you need it.

High-speed Shutter

This quickens the shutter speed by increments to catch fast-moving subjects with less blurring. The effect, however, may only be noticeable on freeze-frame or slow motion playback. Also, since the exposure time is cut, HIGH-SPEED SHUTTER requires a lot of light and is generally only useful outdoors.

Fade

With the FADE mode selector, the color of picture fade in/out can be set to black or white. Picture and sound can be faded in or out for a soft-looking intro or exit from a scene.

Date/Clock

If this function is activated, you cannot remove it from your video later! If you see the date or time indicator appear on the viewfinder, simply press the DATE/CLOCK button until it disappears.

VCR Controls

The camcorder has buttons for playback, fast-forward, rewind, etc., similar to any VCR or portable videocassette deck. These are useful for reviewing footage in the viewfinder or on a monitor. If you use these functions to review footage, make sure to cue the tape to forward to where you last stopped recording to avoid recording over footage.

Tally Clock

This indicates to the cast when the camera is recording.

Videotape Types*

This page is a guide to help you understand the different formats of video, and which one may be right for you.

There are several different formats for recording video: VHS, SVHS, Beta, 3/4-inch, 8mm, and Hi-8.

Beta is popular with professional photographers or videographers. 8mm, VHS, and SVHS are the most popular formats for non-professional use.

Beta is the highest quality tape so it will produce the best quality video recording.

A high quality videotape can record good sound and good visual detail. The larger the bandwidth (the range of frequencies that can carry video information), the more video detail it can hold. The larger the bandwidth, the more lines of resolution there are on the tape, creating a sharper picture.

Beta holds the largest bandwidth, with 500 lines of resolution.

Format Lines of Resolution

Format	Lines of Resolution
VHS	240
8mm	240
SVHS	400
Hi-8mm	400
Beta	500

Hi-8mm tape

VHS tape

In general, when you buy videotapes, you get what you pay for. If you buy a tape for 99 cents, it is probably going to give you 99 cents worth of quality and use.

Think about these questions when you buy videotapes:
- Consider how long the tape needs to be for your purposes. Tapes are available in a variety of lengths.
- When you buy film for a still camera, there are a variety of films to choose. Some are best for action, some for bright light. The same is true with videotapes. The tapes are labeled according to what the manufacturers think the tapes are best used for. You may or may not notice a difference depending on how you use the tape.

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Stationary camera with tripod

Hand-held camera

Camera Positions

There are three basic camera positions: **stationary**, **hand-held**, and **moving**.

Stationary

A stationary camera is in the same place for an entire shot and it's usually mounted on a **tripod** to keep it steady. A tripod can be adjusted to different heights and angles. Sometimes the camera is set on a table or another stable surface. Either way, the camera is stationary, but it can still be swiveled around to shoot someone as they walk through a room, for example. The camera can shoot a lot of movement from a stationary place.

Hand-held

Hand-held means exactly that. If you are the camera operator, it means you would hold the camera in your hand as you shoot. You can stand still or move. The image will move with the motion of your body. Usually the picture ends up looking jiggly. Footage shot with a hand-held camera often makes it look like things are happening at that moment, like live news footage. These kinds of shots are often used to provide a particular **Point-Of-View** or **POV** shot because we are seeing things from a person's **Point-Of-View**.

Moving camera

Moving

A moving camera is one that moves during the shoot, like shooting a moving car from another moving car. Shooting as you walk would be a hand-held moving shot.

Anything with wheels and a place to sit can work for a moving shot. If you wanted to film someone walking along the sidewalk, you could get into a shopping cart and have someone push as you shoot. Of course, no one in the audience will ever know you were in a shopping cart. All they see is a great shot.

For low-angle moving shots, some directors have been known to get on a skateboard with the camera. Whatever you do, don't hurt yourself, drop your camera, or run into anyone.

camera techniques

Try shooting a simple shot — a dog sleeping, your friend walking, or the newspaper lying on the kitchen table. Choose one and use all three camera techniques — stationary, hand-held, and moving. How do the moods and feelings conveyed by the shot change depending on how you move the camera?

Shot of: _____ with stationary camera

Write what you think of the shot: _____

_____

_____

_____

Shot of: _____ with hand-held camera

Write what you think of the shot: _____

_____

_____

_____

Shot of: _____ with moving camera

Write what you think of the shot: _____

_____

_____

_____

_____

_____

Long shot

Medium shot

Close-up

Camera Moves

Now that you know the three basic camera positions, here are three basic *camera moves*:

Pan

Move the camera from side to side as if you are following someone walking across a room. Or, you can **pan** a room that is empty to show that it is empty. A **pan** follows the same kind of movement your eyes might make if you were going into a room and scanned it to see what is there.

Tilt

Move the camera up and down as if you are following someone jumping on a trampoline. A **tilt** can be used even when a camera is fixed on a tripod.

Zoom

Move in on an object from a wider shot to a closer shot. You can also **zoom out** to include more of the setting. Moving the camera closer and farther away will give you pretty much the same effect, but it will alter the perspective.

Shooting Technique

Following, are the steps of the camera setup checklist. Take the shots listed below.

Zooming allows you to take a lot of different kinds of shots. Here are four of the most common shots used:

- **Long shot** (LS) — a camera shot where the main subject appears small among its surroundings
- **Medium shot** (MS) — shooting a human figure (or other subject) so you see the person from the waist up
- **Close-up** (CU) — a shot taken very close to the subject or with the subject of the shot very large within the frame, revealing a detail only, like hands, face, etc.
- **Extreme Close-up** (ECU) — a shot taken very close to the subject, closer than would be necessary for a close-up, revealing extreme detail, like a tear dropping from an eye.

Camera moves can reveal something that you do not want the audience to see at first. For instance, imagine a scene where you see a small group of students talking outside, and then the camera **zooms in** behind them to reveal a monster in the bushes.

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See how you can build suspense in different ways, depending on how you put your pictures together?

Close up of monster

Shot of three girls

Medium shot of the monster

Shot of the three girls

Medium shot of the monster

Close-up of the monster

Or imagine you see a close-up of a man's face while he is asking a woman to marry him, then the camera pulls back to reveal that he is just practicing in the mirror.

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EXPLORE: camera movement

Move around with the camera while shooting and see what it looks like. Then do the same shot standing still. Take a look at what you shot. How does the feeling change in both instances? Which one would you use in different situations?

Framing the shot

The way you frame your shot (what is *in* the frame, versus, the rest that is outside), and where you place the camera, can show the audience very different things.

Maybe a scene calls for a couple to say goodbye, and then the guy gets into his car and drives away.

If you want to emphasize the loneliness of the girl left behind, you might use a stationary shot with her in the foreground and let the car get smaller and smaller in the frame as it pulls away.

Or you might do the opposite — stay with the car and pull away as the girl gets smaller and smaller in the distance. Again, experiment. Try different things and see what you like.

What sort of feelings do these two different sequences bring up? Which one do you like better? Why?

Composition

How everything in the frame is positioned is called the **composition**. It is usually more interesting to have some things closer to the camera and some things farther away. *What* you choose to place closer and farther away depends on what information you want to get across in the shot. There is no right or wrong, there is only what looks best to you. (You might want to look at movies, paintings, advertisements, and photographs to see how other people compose their shots.)

Do you see how a shot's composition makes a difference in how you, the viewer, feel?)

Sometimes having a frame a little out of balance can be a message to the audience that all is not as it seems, that something awful or funny, or dramatic is about to happen.

For example, if you want a bad guy to appear in a scene, you may want to have him enter the frame from the side in a wider shot so that you almost do not notice him at first. Then, maybe you will cut to a scary close-up. This can have a lot of impact.

An unbalanced composition also works well in comedy. Scenes are often funnier when they are off-balance.

The composition, camera position, and camera moves are important to telling the story.

## Experiment.

Other Camera Hints

- Whenever possible, use a tripod. A tripod will give you a steady shot. If you do not have a tripod and the only option is to hold the camera on your shoulder, try leaning your back against a wall. That will steady your body. Or, put a cushion or pillow on your shoulder and balance the camera on it. Just keep in mind, what looks like a little bit of shaking when you are shooting looks like a whole lot of shaking when you are watching.

- Before you settle on your shot, why not experiment? Take a walk in the area and try to see the spot you will be shooting from different angles. Squat down. Stand on your tiptoes. Lean from side to side.

- Think about shooting **coverage**. Coverage is a shot that an editor uses to break up action, to make it more exciting or more interesting.

For example, if two people are talking, you might shoot a steady medium shot (a shot that shows both people from the top of their heads to their waist) of them standing and facing each other while they are talking.

Then shoot the conversation again. This time, shoot a close-up of one of the people. Then shoot it *again*, this time as a close-up of the *other person*. Can you imagine how helpful this will be for editing? Watch television shows and commercials to see how **coverage** is commonly used in editing.

- Take shots that will help visually connect sections or subjects. For example, a wide shot of people walking into a building orients the viewer for the scenes inside. A moving shot from a car, a camera pan, or a person walking can connect two shooting locations. (More about specific transition ideas later.)

See how using coverage shots and close-ups can increase your options when you start to edit?
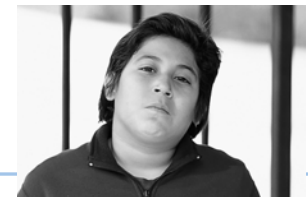
Lighting: A Bright Subject*

If there is not enough light, we cannot record pictures, but adequate **illumination** is only the beginning of good **lighting**. If you have ever tried to read a book in dim light, you know that your eyes do not work as well as they do in brighter light. Likewise, video cameras can record in amazingly low light, but their pictures will be much better— clearer, sharper, and more colorful — at higher **base light** levels. Once you have adequate **base light**, you begin the art of **lighting**: controlling the direction and balance of various light sources.

Lighting, whether daylight or electric, is an integral part of film production. While bad lighting sticks out like a "sore thumb," good lighting often goes unnoticed by non-technical people.

In addition to your adequate amount of base lighting, you can add or subtract other light sources in order to create depth and texture with shadows.

You want lighting that is bright enough to let you see what you are videotaping with the amount of detail you want. If the light is too dim or dark, you will not be able to see much on your videotape.

If you use the overhead lights in a room or natural sunlight, make sure the camera is not tilted up into the light. You do not want to shoot directly into any light because you may damage the camera.

In general, you do not want the source of light to come from behind your subject. If a light source is behind an object, it will seem dark and you may not be able to see what is going on, or see the details of the object.

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If there is not enough light available, try using the GAIN or BACKLIGHT button. This will let the camera work with less light; however, the video may not look as clear.

In daylight, the base light level is generally quite good. Control over lighting is mainly through choice of camera angle and time of day and where you put your own light. Also, when practical, harsh contrast sunlight can be softened by "filling" shadows with a supplementary (extra) light or reflector.

Indoors, the available light is usually not adequate for quality recording. Most indoor video recording requires the use of supplemental lights to increase the base light levels while striving to maintain a natural and pleasing effect.

Always plan to arrive early so you can experiment with your light. With video you can see the results instantly by watching the viewfinder or monitor.

Remember that video is a "high contrast" medium. That means shadows that look okay to your eye will appear darker on screen.

Other considerations are:
- costume
- skin tone
- hair
- background

All of these will affect your video picture. *White and fluorescent colored clothing or backgrounds are trouble* because they are too bright and make most subjects reproduce poorly.

Avoid taping people against a white background, and advise them not to wear white or solid fluorescent-colored clothes. The iris of the camera adjusts for the overall brightness of the image and will tend to close down, leaving your subject's face underlit. Also, small, "busy" patterns, like fine stripes, tiny polka dots, or herringbone, can interfere with the video dot pattern and "dance" on the screen.
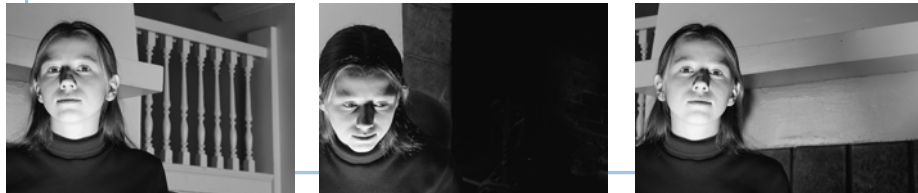
Eyeglasses and reflective jewelry can be a nuisance. Try moving lights higher and further to the sides to lessen reflections. Or, bounce lights off white walls, ceilings, or cards.

EXPLORE:
how lighting can change a mood

Lighting can really set a mood. Pick a room and use your camera to shoot that room for a few minutes at a time at different times of the day. Think about how the different lighting makes you feel — how the shadows make the room seem different. At some times of the day, the room might feel like a cheerful place; at other times, it may seem disturbing. How does the feeling change if you turn some lights on? What happens if you open the curtains or shades? What happens when you shoot the room in the dark?

Experiment.

See how lighting can be used to make a perfectly ordinary shot look...kind of scary? Lighting is used to create a mood.

Sound

Music and Other Sound Effects

If you saw the movie *Jaws*, you probably remember the music that was used to build tension. That bum-bum, bum-bum, bum-bum sound made you sure the shark was about to appear.

In *Star Wars*, deep, low music was used whenever an evil character was getting into a scene — and light, classical music played when the scene featured one of the good guys.

Sound is an incredibly important part of a movie. It helps set a mood.

Good sound effects (**SFX** for short) not only make a movie a lot more interesting, they help tell the story as well. For example, if the audience sees a close-up of a woman's face while hearing the SFX of footsteps approaching, they know someone is coming, even if the audience cannot see the person coming. If the footsteps sound heavy and make an echo-type sound, they know — or, at least, are *led to believe* — that something bad is about to happen. If there is scary music playing at the same time, it increases the tension even more.

The audience doesn't need to see something to know it's there. Sometimes it's more effective if people don't see everything because their imaginations can take over.

Creating SFX is lots of fun. You can make sounds using anything.

When you are trying to create the sound of something that you cannot record live, like the sound of hot lava, you could record the sound of spaghetti sauce boiling. A substitute sound will work, as long as it sounds believable to the audience. You just have to *experiment* until you find the right ones.

If you have editing capabilities (discussed later in this manual), you will be able to record your SFX separately, and add them to your movie after it is shot. You might also be able to **score** the movie, which means to add music to it.

If you don't have the editing equipment to add sound after your shoot, you will have to do the SFX *while* you are shooting. You will need to do your experimenting well before the shoot. Then you will need to rehearse in order to perfect the timing, so that the SFX can match the action. Also, you will need to do a few tests before the day of the shoot, to determine the most effective distance to the camera microphone to get the best sound.

Ideas to get you started:

- To create the sound of thunder, wiggle a flimsy cookie sheet.
- In order to make a thud sound heavier when someone falls, drop some heavy books off-camera.
- To make the sound of fire, crinkle up some cellophane or some dead leaves. If you wanted to add the sound of popping sparks, have someone crack their bubble gum a few times into the microphone.
- Walking in very wet sneakers makes a nice squelching sound.

Garbage-In Means Garbage-Out

During the shoot, microphones are the tools we use to gather sound for recording. Microphones work very much like our ears except for one thing — they have no brain.

Our brains help us filter out distracting noises so we can concentrate on what we want to hear. *Microphones take in everything,* indiscriminately — the voice and natural sounds you want, along with the noise and garbage that can garble your audio track.

To help solve this problem, microphones are designed with different "listening" or pickup patters, and with different ways of mounting.

The job of the audio person is to choose the right microphone, and put it as close as possible to
the source of sound in order to get the most program audio and the least garbage (unwanted noise).
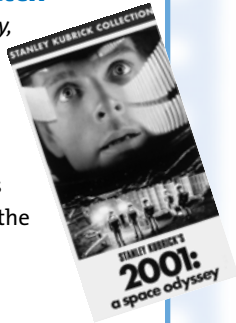
Microphone Types

On-Camera Microphone

The camera-mounted microphone is very convenient, but it is also very far from the source of sound. For interviews, the voice gets mixed with too much other noise. At a shoot, you may hear a person fidgeting in the back louder than the person on camera.

Use the camera microphone for getting ambient or "natural" sounds of crowds, traffic, rustling leaves, etc.

There is a MICROPHONE SELECT SWITCH next to the camera's built-in microphone. The zoom setting will help direct the built-in microphone toward the actors (or subjects) according to the setting of the zoom lens. This directional function will work better on a close-up shot than a wide shot.

The TELE setting increases the built-in microphone's sensitivity when recording sound from a distant source.

The WIDE setting records the widest range of sound. Under normal shooting conditions, the WIDE setting is most commonly used. This will allow the best recording of ambient sound.

Hand-Held Microphone

Designed to be hand-held or put on a stand, this is a general-purpose microphone. Plug it into the camcorder's microphone input, and hold it as close as practical to the actors.

Clip-On Microphone

The clip-on microphone (also called LAPEL or LAVALIERE) is small enough to be clipped onto the actor's lapel, shirt, necktie, or dress. It is not very noticeable and tends to make the person less self-conscious than a hand-held microphone in the face.

Because video is such a visual medium, the audio is often neglected in beginning video production. But audio can be just as important as the picture. What follows are some suggestions and considerations for capturing good sound.

Always, always, always:

- Test your equipment before you plan to use it. It is better to find out a microphone is not working before you start shooting, rather than after.
- When you are using the camera, always check your sound before you start. Do a brief test, and then play it back.
- Ideally, a microphone is held or placed 4-6 inches away from your subject's mouth in order to capture clear audio. If you use the on-camera microphone, the ideal distance is about 3 feet — just far enough away to focus on good head and shoulder shots. Be careful about any noise you make. Because you will be closer to the on-camera microphone than the subject will be, you will sound louder.

Solving Audio Noise Problems

Wind can play havoc with your program audio, causing loud pops and crackles which cannot be removed later. Windscreens over your microphone can help.

A common windscreen is the plastic foam "sock" that slides over the microphone's pickup element. The porous foam baffles much of the wind while causing minimal interference to voice and music.

Indoors or out, the audio operator quickly discovers the world is a noisy place. Many unwanted sounds intrude on your production track and obscure the audio you want.

Indoor nuisances include air conditioners, refrigerators, motors, other voices, phones, and pagers. Outdoors, you have traffic, sprinklers, airplanes, wind, voices, and all sorts of things you never notice until you start recording.

Make the best of a noisy situation. Choice of microphone, windscreen, position and timing will all help to minimize unwanted noise and make the sound for your film cleaner and better.

Your choice of microphone is important. A unidirectional (one direction) type will help reduce noise when filming in a crowd or on the street.

Outdoors, try to find a quiet spot for the shoot. Move around the building to escape traffic noise.

It is a good practice to record ambient, or natural sound for each location you are shooting. After you get the scenes you want in a location, ask people to stop talking and turn the camera on in order to record a couple minutes or more of the natural location sounds. In editing, natural sound mixed with program audio can help create smooth audio transitions.

ADDING MUSIC TO YOUR FILM: *

If you plan to use music, be aware of the impact of music and sound effects on your film. Choose them carefully to reflect the feeling and pace of your shoot.

One way to experiment with adding music and sound effects after you shoot is to use the AUDIO DUB feature on your camera, if it has one. This feature allows you to record audio (music, voice, or other sounds) over the video you have captured, just by pressing down the button while you play the video in the camera. Bear in mind, if you use this feature, you will erase all other audio on that part of the tape — like the actors' dialogue!

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And a Few "Sound" Tips

- *Always check to make sure the audio is recording when you are shooting.* You can do this by playing back a short test recording to make sure that both audio and video are working.
- Try to shoot in locations that are not noisy. If you are shooting in a noisy building, or outside where there is traffic, the sound will likely come out poorly.
- If you are shooting an actor talking in an area that is noisy, think about showing the source of the noise, at least in one of the shots.