



- read about pioneering special effects, some successful and some not.
- learn about Ray Harryhausen's contributions to the movie industry.
- review pivot words.
- increase your understanding of the target academic words for this unit.

READING SKILLS Annotating and Highlighting; Uses of the Present Tense

Think about how well you know each target word, and check (✓) the appropriate column. I have...

AWL

adjust
bond
component
eventual
final
forthcoming
highlight
margin
retain
scheme
seek
subordinate
thereby
vehicle
vision

[illegible]

Before You Read

Read these questions. Discuss your answers in small groups.

1. The top 20 most popular movies of all time featured the latest in special effects. Are special effects the most important component in attracting a big audience?
2. Do you usually go to the theater to watch movies or do you watch them at home on DVDs or TV? Why? If you know that movie has a lot of special effects, will you be more likely to see it in a theater?
3. Movies, to attract customers, often use advertising and promotional gimmicks to increase interest in a movie. What are some gimmicks that have been used to promote films?

MORE WORDS YOU'LL NEED

box office: the place in a theater where the tickets are sold. The term is often associated with the amount of money a movie earns

flop: fail (v); something that fails completely (n)

novelty: new and different

READING SKILL

Annotating and Highlighting

LEARN

In Unit 1, you practiced outlining as a way of making notes about reading material. Two quicker methods for making notes involve writing directly on the book page. (Of course, this is only possible if the book is your own. You should never do this with library books or other books that don't belong to you.)

ANNOTATING

Annotating means making notes in the margins of a reading. These brief notes identify key points or call out material that you may wish to reference later.

HIGHLIGHTING

Highlighting means using a colored marker to draw attention to specific words, facts, or points in a reading. There are two ways to highlight text.

INDEXING: Highlight key words and phrases to help find points and details later. It aids skimming and scanning. This approach is demonstrated in the second paragraph of Reading 1.

SUMMARIZING: Highlight longer phrases to create a summary of the material. This approach is demonstrated in the third paragraph of Reading 1.

APPLY

As you read the first three paragraphs of Reading 1, notice the annotation and highlighting that have been done for you. Add more if you want. Then finish reading the article and do your own annotation and highlighting, using both the indexing and summarizing approaches.

Read

This magazine article discusses some of the best and worst special effects in cinematic history.

From Gimmicks to FX

Feature-length movies are expensive to make and must compete with other forms of entertainment—television, video games, sporting events, concerts—to attract and **retain** the large audiences they need to turn a profit. For this reason, moviemakers endlessly **seek** new ways to bring audiences into theaters. Movies added sound and color in the late 1920s, widescreen formats in the early 1950s, and more recently, advanced computer-generated imaging to dazzle¹ us with increasingly elaborate special effects. Many of these special effects (FX) started out as “gimmicks” but proved to be genuine advances that are now essential **components** of most big-budget movies. Other gimmicks have found their appeal more short-lived.

One of the oddest gimmicks was the effort to add odors to the movie-going experience. If sound and **visual** images are possible, then why not smell? As silly as it sounds, there were several serious attempts to enhance films with distinct aromas. In 1959, a film called *Behind the Great Wall* sent 50 odors through the air-conditioning system of a theater. For the 1960 film *Scent of a Mystery*, producer Mike Todd, Jr. (1929–2002) introduced “Smell-O-Vision,” a process designed to release carefully timed scents, such as pipe smoke or food, to each seat. Rather than launch Smell-O-Vision as the next evolution in entertainment, the film flopped. Mr. Todd lost all his investment, and after that both he and Smell-O-Vision were out of the movie business.

Another group of less expensive gimmicks came from a small-time movie producer and director who actually did make money. To attract audiences to his low-budget horror films, William Castle (1914–1977) tried various **schemes** to convince people that his movies were scary. For *Macabre* (1963), he offered free \$1,000 life insurance policies in case the viewer died of fright. For his film *The Tingler*, he equipped selected seats with the “Percepto,” a device that gave an electronic jolt to patrons at crucial points in the film. This jolt would cause the patron to scream, **thereby** adding to the tension in the theater. Castle is perhaps best remembered for “Illusion-O,” a device he used in the movie *Thirteen Ghosts*. He supplied each customer with handheld

¹ dazzle: amaze

Some movie gimmicks
don't last
Gimmick: add odors

“Smell-O-Vision” —flopped

William Castle—less
expensive gimmicks

“Percepto”—shocks in seat

“Illusion-O”—ghost glasses

35 “ghost glasses” that would allow the user to see the ghosts and remove
them if they became “too frightening.” Since everyone would most
likely want to see the ghosts, the device seems pointless. Why not just
show the ghosts? But the gimmick was intended to be fun and increase
anticipation that the ghosts were going to be a lot scarier than they
40 actually were. In practice, most of Castle’s gimmicks were only
marginally successful and often got more giggles than screams—an
inflatable² skeleton floating above the audience during *House on
Haunted Hill* (1959) became a target for thrown candy boxes and soda
cups—but his movies were entertaining and made money. In fact,
45 *Thirteen Ghosts* received a big-budget remake in 2001. This time,
though, only the actors got to wear the ghost glasses.

Advertising for the 1975 movie *Earthquake* **highlighted**
Sensurround Sound, promising sound that was powerful enough to
“crack ribs.” The effect of a low-pitched earthquake rumble was
50 achieved by placing up to ten large subwoofer³ speakers around the
theater wired to a powerful amplifier. When cued by signals in the
film, the speakers emitted a powerful vibration that was felt more than
heard. Unlike Smell-O-Vision and Castle’s inexpensive tricks, the
problem with Sensurround was that it was too successful. Since more
55 and more theaters were multiplexes⁴, the vibrations bothered patrons
in adjacent theaters watching different films. Complaints by patrons
and reports of damage to theaters convinced most theater owners that
Sensurround was not worth the trouble. Only three more films—
Midway (1976), *Rollercoaster* (1977), and *Battlestar Galactica* (1978)
60 featured the effect.

The most famous special effect is the movie in 3-D. Studios had
experimented with three-dimensional photography as far back as 1922,
but the first hit 3-D movie was *House of Wax* in 1953. This **visual**
effect is achieved by sending a slightly different image to each eye. For
65 this to occur, the moviegoer had to wear special glasses that eliminated
the image that the other eye was seeing. This technique was successful
enough that from 1953 to 1955 studios released dozens of 3-D movies.
However, the process was not free from technical glitches (patrons
complained of eyestrain), and **eventually** the novelty wore off. For the
70 next 40 years, 3-D movies became less common, with the technology
mainly associated with nonfiction IMAX⁵ releases.

It is tempting to look at a box-office loser like Smell-O-Vision and
mutter, “What were they thinking?” But the other short-lived gimmicks
were actually associated with box office successes. And in recent years,
75 with better technology, 3-D has enjoyed a resurgence. One 3-D film
grossed nearly \$2.8 billion (U.S.) worldwide in 2009, and that success
almost guarantees that more 3-D movies will be **forthcoming**. And be
ready for the next gimmick. It may be so terrifying that moviegoers are
advised, “Check with your doctor before seeing this film.” ■

² inflatable: designed to be filled with air or gas before use

³ subwoofer: a speaker that emits a very low-pitched sound

⁴ multiplex: a movie complex that contains many individual theaters

⁵ IMAX: a film format used for films shown on very large screens

Inflatable skeleton in
theater

Movies made money

REVIEW A SKILL Pivot Words (See p. 20)

Besides pointing to the main idea, "pivot" words can return a reading to its main point. The reading "From Gimmicks to FX" wants movie gimmicks to seem fun and amusing, but its main point is to show their drawbacks. Reread paragraphs 2–5 and find places where the writer "pivots" back to drawbacks.

Reading Comprehension

- A.** Mark each sentence as *T* (true) or *F* (false) according to the information in Reading 1. Use the dictionary to help you understand new words.
- 1. After the failure of Smell-O-Vision, Mike Todd, Jr. went on to make other movies.
 - 2. William Castle is still making movies.
 - 3. Castle's special effects gimmicks were not entirely successful.
 - 4. One problem with Sensurround was that it caused injuries to moviegoers.
 - 5. The most promising of the FX discussed is 3-D movie technology.
 - 6. Many viewers found that the glasses used for 3-D movies hurt their eyes.
 - 7. The reading suggests that moviegoers today are too sophisticated to fall for FX and gimmicks.
 - 8. The article suggests that most special effect gimmicks were complete failures.
 - 9. Some movies are so scary that viewers need to check with their doctors before they go.
- B.** Scan the article for the answers to these questions. First think about the key word you will scan for. Use your annotation and highlighting to help you. Compare answers with a partner.
- 1. What was the name of the thing that enabled people to see ghosts in a movie?
Key word: *ghost*
Answer: *It was the Illusion-O.*
 - 2. Is William Castle still alive?
 - 3. What kinds of odors were used in the Smell-O-Vision movies?
 - 4. What was the first hit 3-D movie?
 - 5. Which four films featured Sensurround?
 - 6. Which movie had a big-budget remake in 2001?

Vocabulary Activities

Noun	Verb	Adjective	Adverb/ Conjunction
component	_____	component	_____
eventuality	_____	eventual	eventually
_____	_____	forthcoming	_____
highlight	highlight	highlighted	_____
margin	marginalize	marginal	marginally
retention	retain	retentive	_____
scheme a schematic	scheme	scheming schematic	schematically
_____	seek	sought-after	_____
_____	_____	_____	thereby
vision a visionary	envision	visual visionary	visually

- A.** Read this article on recent developments in 3-D technology. Fill in the blanks with a target word from the chart that completes the sentence in a grammatical and meaningful way.

The original 3-D movie technology had several drawbacks. First, it required special glasses. Even with these, the image was often out of focus, causing eyestrain. Second, the effect would only work in the area directly ahead of the screen. However, the human field of (1) _____ extends well beyond the (2) _____ of the screen. Therefore, unless the viewer sat in the middle of the theater, the effect did not work well. (3) _____, the novelty lost its ability to (4) _____ audience interest, and box office sales dropped.

With new technology developed by IMAX, RealD, and other companies, successful movies (5) _____ 3-D technology have made a comeback, with many new films (6) _____. 3-D IMAX versions of animated films began attracting customers in 2004, most notably with a 3-D version of *The Polar Express*. By 2010, the three top 3-D films—*Avatar*, *Toy Story 3*, and *Alice in Wonderland*—together had grossed nearly \$5 billion (U.S.) worldwide. With this success, high-tech firms continue to (7) _____ new and better ways to enhance 3-D effects on a two-dimensional screen.

B. The words in bold can have different meanings. Find the phrases in Reading 1 and circle the meaning appropriate to this context.

1. **marginally** successful
 - a. along a side border
 - b. slightly
2. tried various **schemes**
 - a. tricky or secret plans
 - b. ways of arranging things
3. more 3-D movies will be **forthcoming**
 - a. cooperative and informative
 - b. coming in the near future
4. attract and **retain** large audiences
 - a. keep, continue to have
 - b. hire for a fee
5. **highlighted** Sensurround Sound
 - a. emphasized
 - b. marked with a special color

The words *vision*, *visionary*, and *envision* relate to seeing, physically or mentally.

eyesight	blurred/good/perfect/unobstructed/ 20-20 <i>vision</i>
a picture in your imagination	a disturbing/bleak/horrible <i>vision</i> a <i>vision</i> of a relaxing holiday
a plan for or picture of the future	a global/common/clear/broad <i>vision</i>
	<i>envision</i> difficulties/opportunities/ possibilities/problems/a plan
an imaginative, intelligent view of the future	a <i>visionary</i> plan/a leader with <i>vision</i>

C. Which meaning is expressed in each sentence? Match the sentence on the left with a definition on the right. Compare answers with a partner.

- | | |
|--|---|
| ___ 1. To succeed, the company needs a leader with vision. | a. eyesight |
| ___ 2. He envisioned better times ahead. | b. a picture in your imagination |
| ___ 3. Humans have poor color vision at night. | c. a plan for or picture of the future |
| ___ 4. She has a bleak vision of her future in the movie business. | d. an imaginative, intelligent view of the future |
| ___ 5. The company's visionary thinking sparked many hi-tech advances. | |
| ___ 6. The trees blocked his field of vision. | |
| ___ 7. The two managers share a common vision of the company's future. | |

Before You Read

Read these questions. Discuss your answers in a small group.

1. Have you ever created a special effect of any kind? What was it? How did you create it?
2. What kind of personality, talent, and training would make someone good at creating movie special effects?
3. In 2004, *Lord of the Rings: Return of the King* earned the Academy Award for Best Picture. Until then, no movie featuring fantastic creatures or monsters had ever won this prestigious award. Are movies in the fantasy, science fiction, and horror categories underrated? Why do you think these movies rarely win the big awards?

MORE WORDS YOU'LL NEED

blockbuster: a hit movie, usually one with a big budget and an epic story

Oscar: the nickname of an award given by the Academy of Motion Picture Arts and Sciences, also called an Academy Award

Read

This magazine article describes the work of Ray Harryhausen, special effects visionary. Annotate and highlight as you read.

A Big Gorilla Started It All

King Aeetes of ancient Greece is desperately **seeking** the Golden Fleece. Only Jason and his men stand in his way.¹ He reaches into a helmet and throws the Hydra's² teeth upon the ground. Seven armed skeletons pop up from the earth and march in unison toward three nervous warriors. "Kill them all," Aeetes cries. For nearly four minutes, a wild battle ensues among the ruins of a temple overlooking the sea, as three live actors do close combat with the animated figures.

This famous action sequence from the movie *Jason and the Argonauts* (1963) is the work of special effects creator Ray Harryhausen, a legend and an inspiration to the technical



Harryhausen's bond with special effects began when he saw *King Kong*.

wizards who create the cinematic wonders we enjoy today. Those familiar with his work will detect the influence of what he called "kinetic³ sculptures" on later blockbuster films such as *Jurassic Park* and the *Lord of the Rings* trilogy.

Harryhausen achieved the skeleton illusion by using a technique called stop-motion animation.

¹ In Greek mythology, Jason sets sail on his ship, the *Argo*, to find the golden fleece (wool) from a winged goat.

² Hydra: (Greek mythology) a serpent-like beast with multiple heads

³ kinetic: involving or resulting from motion

Harryhausen equipped one-foot-tall model skeletons with joints that allowed the skeletons to move naturally. He photographed the skeletons in one pose. He then **adjusted** their bodies slightly and photographed them again. When this process was repeated many times and run as a movie, it created the illusion that objects were moving on their own. By coordinating the actions of the models with the actions of live actors, Harryhausen made us believe the miniature models were interacting with full-size human actors. It was a tedious process—the skeleton battle took four and a half months to film. But the characters were far more realistic and three-dimensional than cartoon characters and more physically expressive than puppets.

Born in Los Angeles, California, in 1920, Ray Harryhausen's **bond** with movie special effects formed at age thirteen when he saw the pioneering stop-motion work of Willis O'Brien in the film *King Kong* (1933). Even as an adolescent, Harryhausen could tell that the gigantic gorilla was not a man in an ape suit or a cartoon. He wondered how the filmmakers made the gorilla's movements seem so natural and its face so expressive.

Harryhausen began his long career of trying to achieve and surpass the effects made famous by *King Kong*. His first effort was a cave bear made out of his mother's fur coat and photographed with a borrowed camera. Despite difficulty controlling the camera, he succeeded in making the bear appear to move. Excited by the possibilities, he then **sought** training in all aspects of trick photography. He studied drawing, ceramics, and sculpture, each an important **component** in the success of his stop-motion work.

By 1940, Harryhausen was making films on his family's back porch, and soon worked on animated shorts for Paramount Studios. In 1942, he was drafted into the Army Signal Corps, where he worked on animated sequences for training films. After his discharge, Harryhausen made five stop-motion fairy tales called *Mother Goose Stories*. The artistic success of these

animations led to his first big break when Willis O'Brien hired him to work on *Mighty Joe Young* (1949). The movie, an entertaining *King Kong* sequel of sorts, earned its producers a special effects Oscar.

In the 1950s, Harryhausen did impressive special effects work on low-budget, black-and-white science fiction monster films. In *The Beast from 20,000 Fathoms* (1953), sci-fi fans saw a giant stop-motion dinosaur attack New York. In *It Came from Beneath the Sea* (1955), an octopus tears down San Francisco's Golden Gate Bridge. In *20 Million Miles to Earth* (1957), a monster from Venus grows huge and lays waste to Rome.

Over the next 24 years, Harryhausen turned from sci-fi to fantasy/adventure stories filmed in color. These ten films feature dozens of fascinating monsters, each a testament to Harryhausen's **vision**. In *The Seventh Voyage of Sinbad* (1958), live actors fight a giant two-headed bird, a 30-foot-tall Cyclops, and a living skeleton. In *Mysterious Island* (1961), castaways do battle with a gigantic crab and a huge bird. *Jason and the Argonauts* features a blind man fighting off two bird-like humans, a battle with a huge bronze man filled with thousands of gallons of fluid, and Jason's duel with a seven-headed hydra. And don't forget those relentless skeletons. Harryhausen's **final** feature film, *The Clash of the Titans* (1981), finds Perseus, the hero of Greek myth, fighting giant scorpions, outsmarting the deadly, snake-haired Medusa, and bringing down the colossus Kraken. Movie fans still marvel at the expressiveness and personality of these creatures.

Harryhausen was never nominated for a special effects Oscar. Some feel it was because he worked away from Hollywood on lower budget films, rarely using assistants. (Harryhausen **retained** close **bonds** with his family—his father made the ball-and-socket joints for his models and occasionally his mother made the fur coverings.) Others feel that until the success of George Lucas's *Star Wars* (1977), Hollywood **marginalized** sci-fi movies, particularly those featuring monsters and strange creatures. In 1992, Hollywood **finally**

⁴ oversight: mistake

recognized this oversight⁴ and honored Ray Harryhausen with a lifetime achievement Oscar. At the presentation ceremony, two-time Academy Award-winning actor Tom Hanks reportedly said to Harryhausen, "Lots of people say *Citizen Kane* is the greatest film of all time.... No way, it's *Jason and the Argonauts*!"

Today, Harryhausen's stop-motion animation technique has been superseded by more sophisticated computer-generated imaging and performance-capture animation⁵. People accustomed to seamless digital effects may find his work a little rough around the edges⁶. Nonetheless, many contemporary filmmakers are students of his work and cite it as their inspiration. Peter Jackson, the director of the *Lord of the Rings* trilogy and *King Kong* (2005),

is one prominent example. He credits much of his lifelong desire to make movies to a childhood fascination with Harryhausen's work. And most of the stop-motion master's work, even his early experiments, is available on DVD today.

Movies are usually labeled as the work of the actors or director. Technicians most often play an unseen or **subordinate** role in the moviegoer's mind. Ray Harryhausen defies that tradition. Although he never directed or acted in the 15 or so feature-length films he worked on, these films are now seen as **vehicles** for showcasing his talents. Known today as "Ray Harryhausen films," each one is marked by the taste, imagination, and kinetic magic Harryhausen brought to his creations. ■

⁵ performance-capture animation: a technique that can digitally record a live actor's performance and use that data to animate another character

⁶ rough around the edges: unpolished, unrefined

Reading Comprehension

A. Mark each sentence as *T* (true) or *F* (false) according to the information in Reading 2. Use the dictionary to help you understand new words.

- ___ 1. The movie about Jason was based on an ancient tale from Greek mythology.
- ___ 2. Ray Harryhausen was the first to have success using stop-motion animation.
- ___ 3. Ray Harryhausen tended to work alone on his stop-motion photography.
- ___ 4. Some feel that Hollywood didn't take sci-fi movies seriously in the years before *Star Wars*.
- ___ 5. Harryhausen had the support of his family in advancing his career in special effects.
- ___ 6. Stop-motion animation is not as smooth as computer-generated animation.
- ___ 7. Filmmakers today who specialize in special effects don't care about Harryhausen's work.
- ___ 8. Today it is difficult to find copies of Harryhausen's work.

B. Scan the reading for the answers to these questions. Use your annotation and highlighting skills to help you.

1. How does stop-motion animation work?

An object is moved slightly and photographed. This process, when repeated many times, creates the illusion of movement.

2. What has replaced stop-motion animation today?

3. What are three of the black-and-white films Harryhausen worked on?

4. What are three of the color films Harryhausen worked on in the late 1950s and early 1960s?

5. Who directed *Lord of the Rings*?

6. In which category did Harryhausen win an Oscar (Academy Award)?

7. About how many feature length films did Harryhausen work on in his career?

8. Who did the stop-motion animation in the 1933 film *King Kong*?

READING SKILL

Uses of the Present Tense

LEARN

When describing actual historical events, writers typically use the past tense.

*Born in Los Angeles, California, in 1920, Ray Harryhausen's bond with movie special effects **formed** at age thirteen when he **saw** the pioneering stop-motion work of Willis O'Brien in the film *King Kong* (1933).*

When summarizing or describing a story or setting, however, writers often use the present tense.

*King Aeetes of ancient Greece **is seeking** the Golden Fleece. Only Jason and his men **stand** in his way. He **reaches** into a helmet and **casts** the Hydra's teeth upon the ground.*

When writers comment on or analyze a circumstance that still holds true, they can use the present tense. The present tense verb *feature* makes such a comment.

*Over the next 24 years, Harryhausen turned from sci-fi to fantasy/adventure stories filmed in color. These ten films **feature** dozens of fascinating monsters, each a testament to Harryhausen's vision.*

Note: these are not strict rules, and writers can use different verb tenses to create different effects. In the examples above, it would not have been wrong for the writer to use the past tense.

APPLY

This paragraph describes software that can generate real-looking animated characters in movies. As you read, complete the sentences with either the past or the present tense. Compare work with a partner.

In *Jason and the Argonauts*, Ray Harryhausen (1. *use*) _____ miniature models and stop-motion animation to create a realistic-looking battle where seven skeletons moved and reacted individually. But stop-motion animation (2. *have*) _____ limits. The process is too slow to animate more than a few creatures at once.

Director Peter Jackson (3. *face*) _____ this problem in the *Lord of the Rings* movies. The plot (4. *call*) _____ for battles between thousands of fantasy characters. But no movie had ever succeeded in making that many animated characters look real. Jackson called on Stephen Regelous, an expert on visual effects and computer animation, to find a software solution. Regelous (5. *create*) _____ a software application called Massive that can fill a scene with individual beings, or "agents." In stories animated with this software, these agents (6. *move and behave*) _____ independently.

With this software, films can now add pre-built agents, such as people walking and talking on a city street. Artists also (7. *design*) _____ their own creatures and individually (8. *animate*) _____ them with Massive. Peter Jackson's *King Kong* (2005), for example, (9. *use*) _____ Massive to fill Skull Island with animated insects, bats, and other creatures. For the New York scenes, Massive (10. *crowd*) _____ the streets of Manhattan with moving cars, buses, and pedestrians.

Look again at the verbs you added in the passage. Write *H* next to those that describe a historical event. Write *C* next to those that comment on present circumstances.

Vocabulary Activities

Nouns	Verbs	Adjectives	Adverbs
adjustment	adjust	adjustable adjusted well-adjusted	_____
bond bondage	bond	bonded	_____
finality	finalize	final	finally
subordinate	subordinate	subordinate	_____

A. These words can have different meanings depending on context. Scan Reading 2 to find which sense was intended and circle it here.

- adjust
 - raise or lower slightly
 - adapt, get used to
 - move sth slightly
- subordinate
 - secondary, less important
 - make less important
 - an assistant
- final
 - definitive
 - an examination
 - last in a series
- vehicle
 - means of transportation
 - instrument, tool, means

When a verb is followed by an object, it is called a *transitive verb*.

*The glue can **bond** metal to wood.*

When a verb does not have an object, it is called an *intransitive verb*.

*After moving here, she **adjusted** quickly to her new life.*

Most dictionaries will tell you whether a verb can be transitive, intransitive, or both. Depending on which dictionary you use, this can be indicated as follows:

Transitive	<i>v.t.; v.tr.; trans.; [T]; [VN]</i> (meaning <u>verb</u> + <u>noun</u>)
Intransitive	<i>v.i.; v. intrans.; [I]; [V]</i> (meaning no noun after verb)



B. You can learn a lot about a verb by studying how it is used in a sentence. Here are selections from the readings in units 1 and 2. Study the bold verbs and write *T* (transitive) or *Int* (intransitive) in the blank. For transitive verbs, underline the object. Compare work with a partner.

- I 1. ...in order to eat, **seek** and catch prey, mate...
- 2. Why does it **run** so fast?
- 3. ...the cheetah can **outrun** its fleetest prey.
- 4. ...escape predators, and **endure** the elements
- 5. The pronghorn antelope has been **clocked** at close to 70 mph.

The word *bond* can be a noun or verb. It has many different meanings.

a strong connection, emotionally or physically	strong/common/close/emotional/parental <i>bond(s)</i> form/break/feel/forgive/strengthen/destroy a <i>bond(s)</i>
a type of financial investment (usually plural)	savings/government/long-term/treasury <i>bonds</i> purchase/buy/sell/invest in/put money into/ issue/redeem <i>bonds</i>
a joining of atoms into molecules/to form molecules	a chemical <i>bond</i> to chemically <i>bond</i>
a legal contract or promise	<i>A marriage is a legal bond.</i>
sth that restrains sb*	<i>The prisoner broke free from his bonds.</i>
to join firmly/to attach to	<i>This glue bonds well to most surfaces.</i>
to develop a strong trust in	<i>Ducklings will bond with the first animal they see.</i>



*Note: *sb* is a common dictionary abbreviation for *somebody*

C. Which meaning of the word *bond* is expressed in each sentence? Match the sentence on the left with the definition on the right. Compare answers with a partner.

- | | |
|--|---|
| — 1. Despite different approaches, the software engineer and the graphic artist bonded immediately. | a. a strong connection, emotionally or physically |
| — 2. Although born in Southern California, Harryhausen never developed a strong bond with Hollywood. | b. a type of financial investment |
| — 3. Jack breaks free from his bonds and rejoins the crew of the <i>Black Pearl</i> . | c. the joining of atoms into molecules |
| — 4. She put most of her wealth into stocks and bonds. | d. a legal contract or promise |
| — 5. He used a strong glue to bond the neck of the guitar to the body. | e. sth that restrains sb |
| — 6. Water is formed when specific amounts of hydrogen and oxygen bond. | f. to join firmly |
| — 7. Establishing paternity creates a legal bond that protects the child. | g. to develop a strong trust in |

Collocations Chart		
Verb	Adjective	Noun
make, need	fine, minor, slight, small, major, significant	<i>adjustment</i>
_____	strong, emotional, close, tight, common, special	<i>bond</i> (between/among . . .)
_____	main, key, basic, major, central, core, vital, important, essential	<i>component</i>
_____	<i>final</i>	report, decision, payment, analysis, outcome, approval, chapter, exam
_____	<i>forthcoming</i>	appearance, book, election, talks, movie, events
<i>retain</i>	a copy, control, power, moisture, water, a title (sports), a job, the ability to do sth	_____
devise, come up with, think up, carry out	grand, elaborate, brilliant, ingenious, ambitious, crazy	<i>scheme</i> (to do sth)
_____	<i>subordinate</i>	role, position, rank, clause
have, develop, convey, impose	clear, grand, mental, flawed, shared, narrow	<i>vision</i> (of sth)

D. The chart above shows some common collocations, or word partners, for selected target vocabulary. Refer to the chart and complete these sentences. Compare work with a partner.

- After the preview, they made some minor _____ to the film's soundtrack.
- In the interview, the director talked about the use of performance-capture technology in her _____ movie.
- He preferred to work alone, an arrangement that allowed him to _____ complete artistic control.
- Some critics complain that in current films, story and characterization play a _____ role to special effects.
- Innovative special effects were a vital _____ of the film's success.
- Observers could not agree on whether her plan showed a clear _____ of the future or whether it was a crazy _____ certain to fail.
- The committee said that its decision was _____.
- A special _____ developed among the people on the staff.