

This lesson will help you practice analyzing the development of ideas within fiction and nonfiction texts. Use it with core lesson 4. 1 Analyze the Development of Ideas to reinforce and apply that knowledge.

Key Concept

Every piece of writing has a structure. Writers develop their ideas in texts through organization.

Core Skills

- Recognize Organization
- Analyze Text Structure

Identifying Text Structure

A common type of text structure is sequence. Stories and other narratives relate events in the order in which they happened. Often, such texts include words such as *first*, *second*, *next*, and *last*. Another way writers organize their writing is by comparing or contrasting two or more things or ideas with words such as *although*, *both*, and *in contrast*. A third way to organize a text is through cause and effect. Words and phrases such as *so*, *therefore*, *since*, and *as a result* identify cause-and-effect structure.

Directions: Read the passage below. Then complete the activities.

The Maiden Voyage of the *Titanic*

- 1 Ever was [an] ill-starred voyage more [promising] than when the *Titanic*... steamed majestically out of the port of Southampton. [The ship left] at noon on Wednesday, April 10th, bound for New York.
- 2 Elaborate preparations had been made for the maiden voyage. Crowds of eager watchers gathered to witness the departure[.] Everyone was more interested because of the notable people who were to travel aboard her. Friends and relatives of many of the passengers were at the dock to bid Godspeed to their departing loved ones. The passengers themselves were unusually gay and happy.
- 3 Majestic and beautiful the ship rested on the water, marvel of shipbuilding, worthy of any sea. As this new queen of the ocean moved slowly from her dock, no one questioned her construction[.] She [had] an elaborate system of water-tight compartments, calculated to make her unsinkable[.] She had been pronounced the safest as well as the most [luxurious] Atlantic liner afloat.
- 4 There was silence just before the boat pulled out.... [Then] the heavy whistles sounded[.] The splendid *Titanic*, her flags flying and her band playing, churned the water and plowed heavily away.
- 5 [Before departure] the people on board wav[ed] handkerchiefs and shout[ed] good-byes[.] [Their voices] could be heard only as a buzzing murmur on shore[.] [Next, the *Titanic*] rode away on the ocean, proudly [and] majestically....
- 6 And so it was only her due that the *Titanic* steamed out of the harbor bound on her maiden voyage[.] A thousand "God-speeds" were [called] after her, while [she dwarfed] every other vessel that she passed....

(continued)

The Ship's Captain

- 7 In command of the *Titanic* was Captain E. J. Smith.... The next six officers, in the order of their rank, were Murdock, Lightoller, {sic} Pitman, Boxhall, Lowe and Moody. Dan Phillips was chief wireless operator, with Harold Bride as assistant.
- 8 From the forward bridge, fully ninety feet above the sea, peered out the [kind] face of the ship's masterf[.] [He was] cool of aspect, deliberate of action, [and] impressive in [his confidence.]
- 9 From far below the bridge sounded the strains of the ship's orchestra, playing a favorite air from "The Chocolate Soldier. " All went as merry as a wedding bell. Indeed, among that gay ship's company were two score or more at least for whom the wedding bells had sounded.... Some were on their honeymoon tours[.] [Others] were returning to their motherland after having passed the weeks of the honeymoon....
- 10 [Who] would have [predicted] that within the span of six days that ship... would lie at the bottom of the Atlantic[?]

—From *Sinking of the Titanic and Great Sea Disasters* edited by Logan Marshall, 1912

- What is the structure of this passage?
 - compare and contrast
 - problem and solution
 - sequence of events
 - cause and effect
- This quotation from paragraph 6 is structured to serve what purpose: "A thousand 'God-speeds' were [called] after her, while [she dwarfed] every other vessel that she passed...."?
 - to describe the cause of the *Titanic's* sinking
 - to describe the effect of the *Titanic's* sinking
 - to compare the *Titanic* with other ships
 - to contrast the *Titanic* with other ships
- Which word in paragraph 5 is specific to the sequence text structure?
 - could
 - next
 - on
 - and
- One_____ of the large crowds at the departure of the *Titanic* was that many friends and family of the ship's passengers wanted to say good-bye.

Variations in Organization

Often, a text's organization includes more than one structure or variations on a particular structure.

Chronological order, also known as time order, expresses a clear sequence, relating what happened first, second, third, and so on. When writers interrupt the sequence to introduce events that took place before the story began, this is called a flashback. Slow pacing, another way that writers express time, moves gradually through events, using details and description. Fast pacing moves through events quickly to arrive at an important moment.

Directions: Read the passage below. Then complete the activities.

- 1 Holmes had been seated for some hours in silence with his long, thin back curved over a chemical vessel in which he was brewing a particularly malodorous product. His head was sunk upon his breast, and he looked from my point of view like a strange, lank bird, with dull gray plumage and a black top-knot.
- 2 "So, Watson," said he, suddenly, "you do not propose to invest in South African securities?"
- 3 I gave a start of astonishment. Accustomed as I was to Holmes's curious facilities, this sudden intrusion into my most intimate thoughts was utterly inexplicable.
- 4 "How on earth do you know that?" I asked.
- 5 He wheeled around upon his stool, with a steaming test-tube in his hand, and a gleam of amusement in his deep-set eyes.
- 6 "Now, Watson, confess yourself utterly taken aback," said he.
- 7 "I am."
- 8 "I ought to make you sign a paper to that effect."
- 9 "Why?"
- 10 "Because in five minutes you will say that it is all so absurdly simple."
- 11 "I am sure I will say nothing of the kind."
- 12 "You see, my dear Watson"—he propped his test-tube in the rack, and began to lecture with the air of a professor addressing his class—"it is not really difficult to construct a series of inferences, each dependent upon its predecessor and each simple in itself. If, after doing so, one simply knocks out all the central inferences and presents one's audience with the starting-point and the conclusion, one may produce a startling, though possibly a meretricious, effect. Now, it was not really difficult, by air inspection of the groove between your left forefinger and thumb, to feel sure that you did not propose to invest your small capital in the gold fields."

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- 13 "I see no connection. "
- 14 "Very likely not; but I can quickly show you a close connection. Here are the missing links of the very simple chain: 1. You had chalk between your left finger and thumb when you returned from the club last night. 2. You put chalk there when you play billiards, to steady the cue. 3. You never play billiards except with Thurston. 4. You told me, four weeks ago, that Thurston had an option on some South African property which would expire in a month, and which he desired you to share with him. 5. Your check book is locked in my drawer, and you have not asked for the key. 6. You do not propose to invest your money in this manner. "
- 15 "How absurdly simple! " I cried.
- 16 "Quite so! " said he, a little nettled. "Every problem becomes very childish once it is explained to you. Here is an unexplained one. See what you can make of that, friend Watson. " He tossed a sheet of paper upon the table, and turned once more to his chemical analysis.
- 17 I looked with amazement at the absurd hieroglyphics upon the paper.
- 18 "Why, Holmes, it is a child's drawing, " I cried.
- 19 "Oh, that's your idea! "
- 20 "What else should it be? "
- 21 "That is what Mr. Hilton Cubitt, of Riding Thorpe Manor, Norfolk, is very anxious to know. This little conundrum came by the first post, and he was to follow by the next train. There's a ring at the bell, Watson, I should not be very much surprised if this were he. "
- A heavy step was heard upon the stairs, and an instant later there entered a tall, ruddy, clean-shaven gentleman, whose clear eyes and florid cheeks told of a life led far from the fogs of Baker Street. He seemed to bring a whiff of his strong, fresh, bracing, east-coast air with him as he entered. Having shaken hands with each of us, he was about to sit down, when his eye rested upon the paper with the curious markings, which I had just examined and left upon the table.
- 22 "Well, Mr. Holmes, what do you make of these? " he cried. "They told me that you were fond of queer mysteries, and I don't think you can find a queerer one than that. I sent the paper on ahead, so that you might have time to study it before I came. "
- 23 "It is certainly rather a curious production, " said Holmes. "At first sight it would appear to be some childish prank. It consists of a number of absurd little figures dancing across the paper upon which they are drawn. Why should you attribute any importance to so grotesque an object? "
- 24 "I never should, Mr. Holmes. But my wife does. It is frightening her to death. She says nothing, but I can see terror in her eyes. That's why I want to sift the matter to the bottom. "
- 25 Holmes held up the paper so that the sunlight shone full upon it. It was a page torn from a notebook. The markings were done in pencil....
- 26 Holmes examined it for some time, and then, folding it carefully up, he placed it in his pocketbook.
- 27 "This promises to be a most interesting and unusual case, " said he. "You gave me a few particulars in your letter, Mr. Hilton Cubitt, but I should be very much obliged if you would kindly go over it all again for the benefit of my friend, Dr. Watson. "

—From "The Mystery of the Dancing Men" by Sir Arthur Conan Doyle

1. Which text structure is used in paragraph 21?
 - A. chronological order
 - B. compare and contrast
 - C. problem and solution
 - D. cause and effect

2. Which of the following definitions best fits the meaning of the word *inferences* as it is used in paragraph 12?
 - A. statements
 - B. conclusions
 - C. evidence
 - D. reasoning

3. How is this passage structured?
 - A. It relates a story in the sequence that the events happened.
 - B. It compares Watson's and Holmes's methods of solving mysteries.
 - C. It contrasts Watson's and Holmes's methods of solving mysteries.
 - D. It shows the causes that led to Holmes taking Cubitt's case.

4. Review the following events from the story . Then write the events into the chart in the order in which they occur in the passage, with the first event at the top and the last event at the bottom.

↓
↓
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Holmes tells Watson the six missing links of the simple chain.

Holmes brews a product with his back curved over a chemical vessel.

Mr. Hilton Cubitt rings the doorbell.

Holmes holds up a piece of notebook paper into the sunshine.



Writing Practice

Directions: Using the compare-and-contrast text structure, write a brief paragraph in which you compare and contrast two of your favorite family traditions. You may choose traditions that exist in your immediate family, in your extended family, or traditions that you would like to start. While writing this piece, make sure you use words that are specific to the compare-and-contrast text structure.

This lesson will help you practice analyzing text structure and how it impacts key ideas. Use it with core lesson 4. 2 Analyze How Structure Impacts Key Ideas to reinforce and apply your knowledge.

Key Concept

Authors structure what they write to communicate and reinforce key ideas.

Core Skills

- Analyze the Relationship between Paragraphs
- Understand Organization

Distinguishing between Text Structures

Writers often use one of five main types of text structures. These five text structures are sequence, compare and contrast, cause and effect, description, and problem and solution.

A text that has a sequence text structure places events in time order or points in order of importance. In texts that use compare-and-contrast structure, a writer compares, contrasts, or compares and contrasts ideas. Cause-and-effect texts describe how events cause other events. An event can have multiple causes or multiple effects. Texts that have the description text structure use the five senses to paint a vivid picture. Finally, problem-and-solution texts offer one or more solutions to a problem.

Directions: Read the passage below. Then complete the activities.

Graduated Driver Licensing: A Proven Road to Improved Teen Safety

- 1 The National Safety Council is a leader in promoting Graduated Driver Licensing (GDL).
- 2 GDL is a novice driver licensing system that is proven effective at reducing teen drivers' high crash risk by 20—40%. States with stronger, comprehensive GDL systems see a higher reduction in teen crashes. GDL reduces teen driver exposure to high crash risk situations, such as nighttime driving and teen passengers.
- 3 GDL systems have three stages of licensure:
 - 1 A learner's permit that allows driving only while supervised by a fully licensed driver.
 - 2 An intermediate (sometimes called provisional) license that allows unsupervised driving under certain restrictions including nighttime and passenger limits.
 - 3 A full license.
- 4 All new drivers can make wrong decisions behind the wheel. However, teens are the most at jeopardy. They bring to the road a unique mix of inexperience, distraction, peer pressure, and a tendency to underestimate risk....
- 5 Most Americans typically learn to drive during the teen years, when the brain is not fully mature yet. Recent research is beginning to give us insight into why many teens have difficulty regulating risk-taking behavior:
 - The area of the brain that weighs consequences, suppresses impulses, and organizes thoughts does not fully mature until about age 25.

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- Hormones are more active in teens, which influence the brain's neurochemicals that regulate excitability and mood. The result can be thrill-seeking behavior and experiences that create intense feelings.

- 6 Learning to regulate driving behavior comes with time and practice. Defensive Driving Course-Alive at 25* offers a balanced approach to help teens not only regulate their own driving behavior, but also help them deal with the actual issues that can influence their driving behavior.
- 7 Driver education programs play a role in preparing teens to drive, but should not be viewed as the end of the learning-to-drive process. In order to develop safe driving skills, inexperienced drivers need opportunities to improve through gradual exposure to increasingly-challenging driving tasks. Teens become safer drivers with more driving experience.
- 8 In some states, the completion of driver education qualifies a teen for full driving privileges. The National Safety Council believes this is not a wise approach. Research shows that significant hours of behind-the-wheel experience are necessary to reduce crash risk. Parent involvement and Graduated Driver Licensing play important roles in developing skills.
- 9 DriveitHOME is a new program offering specially-created resources to help parents keep their teens safer on the roads, especially after a teen gets a driver's license. Designed by parents for parents, the unique program includes an interactive website featuring engaging videos, practice tips and other critical resources. Parents can sign up to receive weekly practice tips and suggestions via email, and are encouraged to share their own teaching techniques and experiences.

—From “Graduated Drivers” by National Safety Council

1. Which text structure best describes the way the 3. Paragraph _____ presents causes ideas in paragraph 3 are organized? for why teens have a hard time managing risk] behavior behind the wheel.
 - A. compare and contrast
 - B. cause and effect
 - C. order of importance
 - D. sequence
2. Which quotation from the passage offers one solution to the problem of teen drivers' high crash risk?
 - A. “All new drivers can make wrong decisions behind the wheel.”
 - B. “However teens are the most at jeopardy.”
 - C. “They bring to the road a unique mix of inexperience, distraction, peer pressure and a tendency to underestimate risk....”
 - D. “Teens become safer drivers with more driving experience.”

Lesson 4.2 Analyze How Structure Impacts Key Ideas

4. Fill in the concept web with the descriptions of the effects of GDL.



“States with stronger, comprehensive GDL systems see a higher reduction in teen crashes.”

“GDL reduces teen driver exposure to high crash risk situations, such as nighttime driving and teen passengers.”

“In some states, the completion of driver education qualifies a teen for full driving privileges....”

“Designed by parents for parents, the unique program includes an interactive website featuring engaging videos, practice tips and other critical resources.”

Text Structure and Key Ideas

Understanding where writers place important information can help readers identify the significant ideas in a text. Many times, a writer will emphasize an idea by providing extensive details or by placing it toward the beginning or the end of a text.

Directions: Read the passage below. Then complete the activities.

- 1 A tremendous number of little toads, one or two months old, fell from a great thick cloud that appeared suddenly in a clear sky, in August 1804, near Toulouse, France, according to a letter from Prof. Pontus to M. Arago. (*Comptes Rendus*, 3-54.)
- 2 An issue of *Scientific American* magazine, dated July 12, 1873, reported that “A shower of frogs which darkened the air and covered the ground for a long distance is the reported result of a recent rainstorm at Kansas City, MO. ”
- 3 Some experts claim that small frogs and toads have never fallen from the sky, but in every purported case were “on the ground in the first place,” or that there have been such falls “up from one place in a whirlwind, and down in another. ”
- 4 See, for instance, *Leisure Hours*, 3-779 for accounts of small frogs, or toads, said to have been seen to fall from the sky. The writer says that all observers were mistaken and that the frogs or toads must have fallen from trees or other places overhead.
- 5 There are, it must be said, cases where the possibility of fallen frogs having “been there in the first place” is quite remote:

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- 6 Little frogs were found in London, after a heavy storm (July 30, 1838, *Notes and Queries*, 8-7-437).
- 7 Little toads were found in a desert, after a rainfall (*Notes and Queries*, 8-8-493).
- 8 At the same time, I do not completely dismiss the conventional explanation of whirlwinds as the [reason for] falling frogs. I think that there have likely been such occurrences. In the *London Times*, July 4, 1883, there is an account of a shower of twigs and leaves and tiny toads in a storm upon the slopes of the Apennines. This may have indeed been the work of a whirlwind.
- 9 That is one specific case, however, In others, while it is easy to say that small frogs that have fallen from the sky had been scooped up by a whirlwind, this gives no regard for mud, debris from the bottom of a pond, floating vegetation, or loose things from the shores. To accept a whirlwind as the cause, one would need to accept that a whirlwind somehow, very precisely, picked up frogs alone.
- 10 There is also the fact that, of all instances I have studied that attribute the fall of small frogs or toads to whirlwinds, only one actually identifies or places the whirlwind. Also, it seems to me that a pond going up would be quite as interesting as frogs coming down, and that anybody who had lost a pond would be heard from. Yet in *Symons' Meteorological Magazine*, a fall of small frogs, near Birmingham, England, June 30, 1892, is attributed to a specific whirlwind, without a word as to any special pond that had contributed. And something else that strikes my attention here is that these frogs are described as almost white.
- 11 I am afraid there is no escape for us: we shall have to accept that upon this earth exist some still-unknown locations: places with white frogs in them.

—Adapted from the writings and observations of Charles Fort

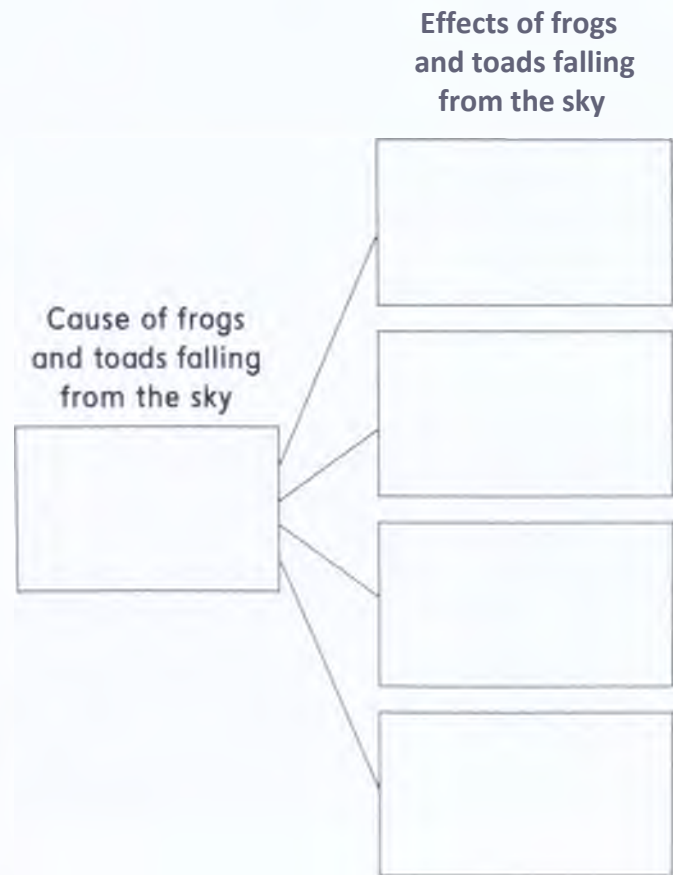
1. Why does the author begin the passage with the observations of frog and toad sightings?
 - A. to reveal instances of frog and toad sightings before exploring what may have happened to cause the event
 - B. to show the problem that frog and toad sightings posed in London and France
 - C. to contrast the effects of frog and toad sightings in London with the effects of frog and toad sightings in the United States
 - D. to present a solution for the problem of frogs and toads falling in France
2. Which paragraph from the passage begins with the author's own skepticism about a possible cause of frog and toad sightings?
 - A. Paragraph 2
 - B. Paragraph 3
 - C. Paragraph 4
 - D. Paragraph 10

Lesson 4.2 Analyze How Structure Impacts Key Ideas

3. Which of the following definitions best fits the meaning of the word **remote** as it is used in paragraph 5?

A. unfriendly
B. unlikely
C. distant
D. device

4. Read the list of excerpts from the passage below. Write a possible cause of frogs falling from the sky into the cause box. Then write the effects of this cause into the effects box.



“Little frogs were found in London, after a heavy storm...”

“This may have indeed been the work of a whirlwind.”

“Little toads were found in a desert, after a rainfall...”

“[A] shower of twigs and leaves and tiny toads.. [fell]... upon the slopes of the Apennines.”



Test-Taking Tip

Drag-and-drop items are test questions that have you move words, phrases, numeric expressions, or images to a target location on the screen. You may be sequencing, classifying, or organizing information in this item type. As you drag and drop your answers into place, move and aim your answers accurately. Otherwise the computer may not place your answers where you want them to appear.

Writing Practice

All friends have some similarities, and that is what makes them friends. Even though they have similarities, they are not the same. All friends also have differences.

Directions: Write two paragraphs that compare and contrast two of your friends or acquaintances. You might decide to compare your friends in one paragraph and to contrast your friends in the other paragraph, or you might decide to compare and contrast them point by point. While writing, use descriptions along with comparisons and contrasts to make the similarities and differences clear to the reader.

This lesson will help you practice analyzing the effects of transitional and signal words in nonfiction texts. Use it with core lesson 4. 3 Analyze the Effects of Transitional and Signal Words to reinforce and apply your knowledge.

Key Concept

Writers use certain words and phrases to link ideas within sentences and between sentences.

Core Skills

- Determine the Relationships among Ideas
- Analyze Transitions between Paragraphs

Locating Transitions

Transitions are shifts in the text that show the writer has moved from one idea to the next. Transitions can happen between paragraphs or within paragraphs. The best way to locate transitions is to look for signal words or phrases. Signal words and phrases express the following relationships: addition, time order, relative location, relative importance, cause and effect, comparison, contrast, example, and conclusion.

Directions: Read the passage below. Then complete the activities.

How to Choose the Right Dog for You

- 1 Raising a puppy can be a great experience, but choosing a puppy is a big decision. You want to get the kind of dog that's right for you and your family. In addition, you want to pick a healthy puppy that will grow up to be a loyal pet for many years. How do you find the right puppy? Experts agree that you should follow several steps to ensure you choose the right pet.
- 2 First, before buying a dog, make sure you are getting the right kind of pet for your family. Think carefully about the breeds you are interested in, and decide which one will be best for your home. For instance, if you have young children who like to romp and play, you will probably want to get a breed that is large enough to play with your children. A Chihuahua, for instance, would not be a good choice, because it could be hurt easily while playing. On the other hand, the dog you choose should not be a large or aggressive breed if your children are very small. Seek advice from a dog breeder or veterinarian before making a choice.
- 3 After choosing the kind of dog you want, begin looking around. In general, large stores that sell puppies are not the best place to find a puppy because a dog from there might have health problems. Instead of heading for a large store, consider a reputable private breeder. If a private breeder is too expensive, you also might consider getting a dog from your city's animal shelter. When you get a dog from the animal shelter, you often only have to pay for the dog's license and required shots.
- 4 When you pick out a puppy from a litter, observe the puppies carefully from a distance and choose a puppy whose character you like.
- 5 After you have narrowed your choice to one puppy, examine it carefully. Inspect the dog to make sure its skin and fur look healthy. Make sure the puppy doesn't have ticks or fleas, and check its gums. Pink gums indicate good health, whereas white gums could indicate anemia caused by heartworm.
- 6 After you get your puppy home, continue to observe it to make sure it is the dog for you. If you need further advice, check with the breeder or your vet. If you follow the steps above, you will have a fine pet that will give you and your family years of loyalty and companionship.

1. Which phrase found in the first paragraph is a signal phrase?
- A. that's right
 - B. in addition
 - C. for many
 - D. to ensure
2. What does the signal word *after* at the beginning of the sixth paragraph reveal about the shift in ideas between the fifth and sixth paragraphs?
- A. The signal word *after* shows that the sixth paragraph arrives at a conclusion from ideas in the fifth paragraph.
 - B. The signal word *after* shows that the sixth paragraph contrasts the information that the fifth paragraph introduced.
 - C. The signal word *after* shows that the sixth paragraph has shifted in time from the ideas in the fifth paragraph.
 - D. The signal word *after* shows that the sixth paragraph presents an example of the ideas in the fifth paragraph.
3. What does the signal phrase *on the other hand* reveal about the shift in ideas in the second paragraph?
- A. It contrasts the small Chihuahua breed with a large or aggressive breed.
 - B. It compares the small Chihuahua breed with a large or aggressive breed.
 - C. It provides an example of large or aggressive breeds.
 - D. It shows the effect of buying a small Chihuahua breed.

4. Write the steps of finding the best dog in the sequence suggested by the passage.

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graph TD; A[ ] --> B[ ]; B --> C[ ]; C --> D[ ]
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"Once you have narrowed your choice to one puppy, examine it carefully. "

"After choosing the kind of dog you want, begin looking around. "

"After you get your puppy home, continue to observe it to make sure it is the dog for you. "

"First, before buying a dog, make sure you are getting the right kind of pet for your family. "

5. The signal phrase *for instance* is used twice in the second paragraph. What transition does this signal phrase show?
- A. It shows the effect of buying a Chihuahua on families with young children.
 - B. It provides examples of dogs that might or might not be appropriate for families with children.
 - C. It shows what happens in time order after bringing a Chihuahua home.
 - D. It reveals a relative location about the best places to find and buy different dogs.



Test-Taking Tip

Signal words help you link ideas. When writing an extended response on a test, choose the appropriate signal words and phrases to transition between ideas within paragraphs and between paragraphs. For example, if you are placing your ideas in the order of importance, you should use signal words such as *an first*, *more important*, *most important*, and *primarily*.

Analyzing Transitions

Transitions, whether they come within paragraphs or between paragraphs, tell the reader to slow down and focus on how the ideas have shifted. If signal words have not been used, you can infer transitions by paying attention to the relationship between ideas.

Directions: Read the passage below. Then complete the activities.

Why NASA Deserves Our Continued (If Not Increased) Support

- 1 The Space Age began in 1957, with the Soviet Union's successful launch of the unmanned Sputnik 1. The first manned space mission came a mere four years later, in 1961, when Soviet cosmonaut Yuri Gagarin became the first human being to orbit Earth. During the five decades since, human beings have explored outer space in the same way that Europeans explored the hitherto unfamiliar expanses of the Americas during the Age of Exploration—by physically going there. Impressive accomplishments—sending humans to the moon, manually placing the Hubble telescope in Earth's orbit—can be credited to the US National Aeronautics and Space Administration (NASA). Yet, despite NASA's extraordinary history, there has been continual discussion as to whether its continued existence is justified. Today we can state that the answer is “By all means, yes.”

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- 2 Let's begin our analysis of this assertion by addressing the primary objection to it—that the United States cannot afford the expense. Space exploration costs a great deal of money. However, it is a mistake to think of NASA's budget as a waste of money that would be better spent on Earth. It *is* spent on Earth. When President Eisenhower created the agency in 1958, he said that one purpose for it was the development of new technologies adaptable for everyday use. NASA has excelled in this regard. To date, the organization has secured more than 6,000 patents, many of which have driven innovation in other fields. Thousands of inventions, such as cordless tools, water filters, smoke detectors, medical devices, cell phones, and home entertainment systems, can trace their technological lineage to one or more of NASA's patents.
- 3 Moreover, this pioneering of knowledge points to related advantages to space exploration—it answers questions about the material world and how it works, and it also leads to new questions that, when answered, uncover still further knowledge. Surely, this potential for learning is as expansive as space itself. Who knows what remains to be discovered about the universe and our place in it? Perhaps we'll stumble upon new supplies of needed natural resources, new clues about the origins of life, or even new forms of life itself—some of which, it isn't far-fetched to consider, might have much in common with us and perhaps a thing or two to teach us.
- 4 As we think about all of this, we should also look at our world's likely future. There is no guarantee that humankind must forever survive and develop. Some claim that there is an increasing amount of evidence that the opposite outcome is likely. The world's population is growing at an ever-faster rate, but we have limited natural resources. There are at present more than 7 billion human beings on Earth, many already living in poverty. The US Census Bureau estimates that there will be more than 9 billion humans by 2050. It seems unwise, therefore, not to put some effort toward finding new places for humans to live. This idea might seem like science fiction at present, but one decade's sci-fi is the next decade's science fact.
- 5 Finally, let's ponder a proposition that few people would dispute. Whatever the cause, a spirit of curiosity and adventure is part of what it means to be a human being. To state that this inquisitiveness must be limited to the world in which we find ourselves ignores the fact that we would know little about our world if not for that spirit of adventure. To squelch our natural urge to explore space is to deny our very humanity.

Lesson 4.3 Analyze the Effects of Transitional and Signal Words

1. What is the shift in ideas between the first paragraph and the second paragraph?
 - A. The first paragraph presents the problems of space exploration, and the second paragraph provides a solution to that problem.
 - B. The first paragraph discusses the beginning of space exploration, and the second paragraph reveals a shift in time order.
 - C. The first paragraph provides NASA's history, and the second paragraph provides examples of NASA's new technologies.
 - D. The first paragraph presents some of NASA's accomplishments, and the second paragraph concludes that NASA should not be funded anymore.
2. Which of the following definitions best fits the meaning of the word *assertion* as it is used in paragraph 2?
 - A. question
 - B. declaration
 - C. command
 - D. request
3. What signal phrase could be placed at the beginning of this sentence from the second paragraph: "Thousands of inventions, such as cordless tools, water filters, smoke detectors, medical devices, cell phones, and home entertainment systems, can trace their technological lineage to one or more of NASA's patents" ?
 - A. In brief
 - B. By contrast
 - C. In conclusion
 - D. For instance



Test-Taking Tip

When responding to a writing prompt in a test, reread your sentences to make sure that your signal words and phrases make sense in context. Signal words or phrases that have similar meanings cannot necessarily be used interchangeably. Suppose you wanted to write a sentence that contrasted apples and oranges, for example: "Unlike oranges, apples have an edible, thin peel." You might remember that *in spite of* is another signal phrase that shows contrast. Even so, you would not be able to substitute "in spite of" for "unlike" in this sentence.

Writing Practice

Everyone has a variety of skills or talents. Some people are talented artists, but they might also be able to solve complex math problems. Other people are track stars who can also read music.

Directions: Write two paragraphs in which you describe two of your skills or talents. Think about the text structure that best fits the content of your paragraphs. Then use the correct signal words or phrases to transition between ideas within and between paragraphs. Each paragraph should focus on a different skill or talent.

Lined area for writing practice.