

Complete the analogies by selecting the pair of words whose relationship most resembles the relationship of the pair in capital letters. Circle the letter of the pair you choose.

1. AZURE : SKY ::  
(a) wet : water  
(b) cloudy : rain  
(c) sweet : sugar  
(d) green : grass
2. AUDIBLE : EAR ::  
(a) visible : eye  
(b) flexible : hand  
(c) listen : voice  
(d) loud : music
3. ADEPT : SKILLFUL ::  
(a) profound : shallow  
(b) copious : scarce  
(c) prudent : careless  
(d) crucial : vital
4. TRICKLE : DELUGE ::  
(a) bruise : abrasion  
(b) proprietor : store  
(c) parent : generation  
(d) scarcity : profusion
5. BRUSQUE : BRUSQUENESS ::  
(a) reclusive : profusion  
(b) azure : blue  
(c) foolish : inanity  
(d) angry : tirade
6. COLLEAGUE : WORK ::  
(a) fledgling : wing  
(b) fanfare : trumpet  
(c) mettle : metal  
(d) friend : play
7. ANARCHY : LAW ::  
(a) tyranny : freedom  
(b) inkling : suspicion  
(c) calamity : misfortune  
(d) mutiny : ship
8. GRAPPLE : CLAW ::  
(a) dispel : smoke  
(b) shackle : prisoner  
(c) chop : axe  
(d) decelerate : speed
9. WARM : SWELTERING ::  
(a) wet : rainy  
(b) chilly : freezing  
(c) sunny : cloudy  
(d) snowy : wintry
10. FLEDGLING : FLY ::  
(a) toddler : walk  
(b) banter : tease  
(c) baby : cry  
(d) replica : simulate

Read the passage. Then answer the questions that follow it.

## Women in Space, Part Two



On June 18, 1983, the space shuttle *Challenger* rose from the launch pad to begin a five-day mission. Astronaut Sally Ride, the flight engineer, was not the first woman in space. Two Soviet female cosmonauts had **preceded** her. But she was making history as the first American woman to make such a flight.

The thunderous roar of the rockets filled her headphones, and a **pang** of fear gripped her as she wondered if everything was working properly. The feeling quickly passed. In less than ten minutes *Challenger* was in orbit, floating almost two hundred miles above Earth. The only sound was the barely **audible** hum of the fans circulating the air. Outside, the sky was jet black; with no air at this altitude to scatter the sunlight, the sky had lost its familiar **azure** hue.

Released from the harnesses that held them in place, the five crew members floated weightlessly in zero gravity. It was a novel experience for all but the shuttle commander, Bob Crippen. He was the only crew member to have flown in space before. As the astronauts relaxed, they began **bantering** among themselves. Dr. Ride informed ground control that they had “three turkeys and two hams” aboard, although she did not reveal their identities.

Because the shuttle orbited Earth every ninety minutes, the sun rose and set sixteen times every twenty-four hours; night and day, therefore, had little meaning for the five astronauts. During her first rest period, Dr. Ride slept **fitfully**, but soon she adjusted to the routine aboard the shuttle. She once admitted that she was not a **fastidious** housekeeper, but she was careful to stow away everything she did not have an immediate need for. The cramped space of the shuttle’s living quarters made neatness important. Eating in space was no problem. Of course the astronauts didn’t sprinkle salt on their food; it would just float away. Disposing of bodily waste—a subject that had intrigued reporters—was **facilitated** by using an air suction device in the toilet.

The **capacious** cargo bay was located behind the crew’s living quarters. On this particular mission it held two large communication satellites, known as comsats. It also held a \$23 million orbiting laboratory designed to carry out various experiments while separated from the shuttle. In addition to her duties as the flight engineer, responsible for checking the workings of the

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spacecraft, Dr. Ride was also in charge of **deploying** the orbiting laboratory once the two comsats had been released.

One of Dr. Ride's qualifications for this mission had been that she was especially **adept** at handling the robot arm. The arm was a jointed fifty-foot pole with a **grapple** at the end. It was operated by remote control from the shuttle's flight deck. Dr. Ride used the robot arm to remove the orbiting laboratory from the cargo bay and to release it so that it could float freely away from the shuttle. From a distance of one thousand feet, a camera in the orbiting laboratory took spectacular photographs of the shuttle. These were beamed to Earth and shown on television. At the conclusion of the experiments, the shuttle moved closer to the orbiting laboratory. Dr. Ride then recovered the lab and tucked it away in the cargo bay, again using the robot arm.

With their work completed and the flight nearing its end, the shuttle's five crew members prepared to return to Earth. Because their bodies had lost fluids to adjust to weightlessness, they drank **copious** amounts of water. In addition, they put away everything that had been floating freely in the cabin. Once within Earth's gravity, these objects would crash to the floor.

The astronauts knew that reentering Earth's atmosphere at just the right angle was **crucial** for a successful landing. During reentry, the shuttle needed to **decelerate** sharply. The friction caused by air resistance would heat up its exterior to over 2,500 degrees Fahrenheit. But the special heat tiles on the outside would prevent the shuttle from burning up and would keep the interior comfortable.

All went well at the conclusion of Space Transportation System-Flight 7; after a ninety-eight-orbit flight of two and a half million miles, *Challenger* landed safely at Edwards Air Force Base in California. One of the banners that greeted Dr. Ride as she emerged read "HERSTORY MADE TODAY BY SALLY RIDE."

- Answer each of the following questions in the form of a sentence. If a question does not contain a vocabulary word from the lesson's word list, use one in your answer. Use each word only once.

1. How does the sky change as one gets above Earth's atmosphere?

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2. Why would it be inaccurate to describe the shuttle living quarters as **capacious**?

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3. In what ways do you think the lack of gravity **facilitated** the astronauts' work on the space ship?

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4. How was Dr. Ride's sleep affected when she first went into orbit?

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5. What is the meaning of **grapple** as it is used in the passage?

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6. What task **preceded** the release of the orbiting laboratory?

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7. Do you think crew members are likely to **banter** as they board the space shuttle? Explain your answer.

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8. What did Dr. Ride hear as the *Challenger* lifted off?

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9. Why did the astronauts need to be **fastidious** about putting everything away before reentry?

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10. What would happen if the shuttle failed to **decelerate** on reentry?

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11. Why is a plentiful supply of drinking water required on a shuttle mission?

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12. What is the meaning of **deploy** as it is used in the passage?

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13. What **crucial** role did the heat tiles on the outside of the shuttle play?

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14. In what way must the pilot be **adept** during the return to Earth?

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15. Why might the astronauts feel a **pang** of regret upon returning to Earth?

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### FUN & FASCINATING FACTS

• During the Middle Ages much time and energy was devoted to trying to turn common metals, such as iron or lead, into precious metals, like gold and silver. The study of this subject was known as alchemy. A person who had acquired knowledge of how to bring about such miraculous change was known as an **adept**. In time, the word was extended to include anyone who was highly skilled in an activity. Then later it came into more common use as an adjective, meaning "highly skilled."

• In Lesson 1 you learned that *excruciating* comes from the Latin *crux*, which means "a cross." Although the connection is not as clear, the adjective **crucial** is formed from the same Latin root. The explanation lies in the fact that the Romans used crosses not just as a means of execution but also as signposts. If a traveler came to a fork in the road, it was extremely important, or *crucial*, to take the correct road; the cross placed there as a signpost guided the traveler in the right direction.