

STUDY GUIDE

Aerospace: The Flight of Discovery Chapter 6

Education

1. **Aerospace Education** is the branch of general education concerned with communicating knowledge, skills, and attitudes about aerospace activities and the total impact of air and space vehicles upon society.
2. There are various **higher education options** available to prepare a person for a career in aerospace. Some of these options are: community college, technical college, four-year college, and military academy.
3. Students who are interested in engineering or science and who prefer to work with their hands rather than perform design work should consider enrolling in a technical institute program to learn hands-on skills.
4. **College work-study programs** provide jobs for undergraduate and graduate students who need financial aid to pay for college expenses.

Careers

5. The **aerospace industry** produces airplanes, helicopters, spacecraft and many other commercial products.
6. An **air traffic controller** is an aerospace worker who directs air traffic so that it flows safely, smoothly, and efficiently.
7. An **astronomer** studies celestial bodies such as the moon, sun, and stars.
8. A **flight attendant** normally handles the evacuation of passengers aboard an airplane in an emergency.
9. An Air Force **career in Weather** involves collecting, recording, and analyzing meteorological data.
10. A **Flight Dispatcher** is responsible for furnishing flight plans, releasing an airplane for flight and maintaining constant watch on all flights.
11. An **Airport Engineer** plans the improvements and expansion of airports and checks architects' and contractors' plans and work.
12. One of the tasks of an **Aerospace Engineer** is to test aircraft models for maneuverability and structural stability.

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13. The **Aircraft Maintenance** career field is responsible for repairing and modifying helicopters and airplanes.
14. A Navy **Gunner's Mate** operates and performs maintenance on guided missile launching systems and rocket launchers.
15. An FAA **Flight Test Pilot** checks the airworthiness of aircraft through inspection, flight-testing and evaluation of flight performance.
16. **Pilot Astronaut** candidates must have at least ten years of related, progressively responsible professional experience.
17. Approximately one-third of all aerospace jobs are located in California.

Personal Qualifications

18. Before one can apply for flight instruction at an FAA-certified flying school, a person must be 16 years old, pass a third class medical examination, and have 40 hours of ground school instruction.
19. One of the primary negative factors that cause job applicants to not be selected is poor personal appearance.
20. Some of the pertinent items that must be included in a resume are career objective, work experience, education, and personal identification.
21. To help you reach the goals you set, you must:
 - Set clear, vivid, measurable goals
 - Commit fully to achieving your goals
 - Focus and act on your goals
22. Pilots should possess the traits of superior skill, good physical health, and good mental health.
23. Some ways of building self-esteem are to set goals, visualize the “new you,” and find people you can learn from.
24. A **resumé** (pronounced rez-oo-may) is an outline of a person's qualifications and work experience and is typically sent by job seekers to possible employers.
25. **Aptitudes** are your special talents and natural abilities.
26. Long-term planning, goal setting, and sacrifice are factors that constitute a successful career.

Agencies and Organizations

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27. The **Federal Aviation Administration** is the U.S. government agency responsible for regulating air commerce to improve aviation safety.
28. The **U.S. Air Force** is the primary military service responsible for performing research and development for the Department of Defense space program.
29. The National Aeronautics and Space Administration (**NASA**) was established to pursue peaceful uses of space for the benefit of all mankind.
30. The **National Transportation and Safety Board** (NTSB) is responsible for determining the cause, or probable cause of any transportation accident.
31. The **Coast Guard** is the military branch responsible for safeguarding our nation's coasts.
32. The U.S. government is America's aerospace industry's largest customer.
33. Each branch of the military service has a vital role in defending our nation from foreign aggression.