

# JOBS in Your FUTURE

## Words to Know

- **biomedicine**: the branch of medical science that studies the ability of organisms to withstand environmental stress (as in space travel).
- **nanotechnology**: the science of matter at the scale of one billionth of a meter. Nanotechnologists are developing everything from sugar-cube-sized computers to longer-lasting tennis balls.

## You've been hearing it since you were a little kid:

"What do you want to be when you grow up?" Your answer has probably changed over the years. Now, you may be wondering if it's even possible to know what jobs will exist in 10 or 20 years.

Many occupations—doctor, lawyer, teacher, and carpenter, for instance—will be around for a while. But advances in science and technology are bringing about change in many fields—and even creating new ones.

Bruce Mueller is the executive director of the Illinois Institute of Technology's Career Management Center. He tells JS

that "in the next 20 to 30 years, there will be a continuous need for knowledge-based jobs." This means jobs that require a high level of education, in addition to skill and ability. Mueller cites careers in engineering and computer science as examples. Two new areas that will flourish in your lifetime are **biomedicine** and **nanotechnology**. These words might be foreign to you, but you'll hear a lot about them in years to come.

## Trend Tracking

How can experts forecast jobs of the future? The short answer is: trends. A trend is the general direction in which

VIDEO GAME  
DESIGNER



NANOTECHNOLOGIST

SPACE STATION  
TOUR GUIDE



# What jobs will be available when you finish school? How can you prepare for them?

something tends to move. Many trends affect the job market. For instance, an aging population in the United States is causing the health-care industry to expand. More elderly people means a greater need for doctors, nurses, pharmacists, and other health-service workers.

Advances in technology are creating—and eliminating—jobs. The Internet has increased the need for computer systems administrators. At the same time, it has decreased the demand for travel agents. Many people now plan their own vacations online.

“Outsourcing,” or moving jobs to countries with lower labor costs, is another major trend. Taylor Palmer, 14, is an eighth-grader at the Ursuline School in New Rochelle, New York. She believes that when she enters the workforce, “many technology-related jobs will be going overseas.”

Many tech jobs have already moved to India and China. But, Mueller says, a great need remains for “innovation, new technologies, and new solutions.” In other words, highly skilled workers will always be in demand.

## Help Wanted

How can you prepare for your future career? First, study hard, and get a college degree. Barbara Canfield is the director of a tech-prep program at Northampton Community College in Bethlehem, Pennsylvania. “Gone are the days,” she says, “when you could come out with a high-school degree and find a job with a livable wage.”

Second, explore your interests. Mueller encourages students to read articles, search online, and talk to professionals and teachers. “The more

you expose yourself to, the better,” he tells *JS*. “Students should choose a career based on what interests them, what they are good at, and most of all, what they have a passion for.”

If you’re dreaming of a job that’s exciting, challenging—or just downright cool—you might want to consider one of the fields below.



## Video Game Development

### GENERAL DESCRIPTION:

Be part of the team that creates video games.

**POSITIONS AVAILABLE:** Game designers, writers, programmers, composers, sound engineers, and artists. Also seeking businesspeople to run the company.

**SKILLS REQUIRED:** Game developers must have both creative and technical skills. Must enjoy teamwork.

**EXPERIENCE/EDUCATION:** College-level training in computer science and/or art and animation. Other requirements vary according to position.



## Space Tourism

### GENERAL DESCRIPTION:

Join the rapidly growing industry of commercial space flight.

**POSITIONS AVAILABLE:** Aerospace engineers, spacecraft pilots, chemical engineers, and International Space Station tour guides.

**SKILLS REQUIRED:** Requirements for specific positions vary; most call for people skills and a sense of adventure.

**EXPERIENCE/EDUCATION:** Airline pilots and flight attendants are encouraged to apply; previous experience in space a plus but not required.

## Nanotechnology



### GENERAL DESCRIPTION:

Everything from medicine to sports equipment benefits from this “enabling technology” that works with materials 1/100,000th the size of a human hair.

**POSITIONS AVAILABLE:** Physicists, biologists, chemists, and technicians needed to work in many industries.

**SKILLS REQUIRED:** Must be creative and innovative.

**EXPERIENCE/EDUCATION:** College degree in nanotechnology, physics, biology, chemistry, or another area of math, science, or technology.

## A Job You Love

How do kids your age see the job market of tomorrow? “I believe most of the jobs in the future will be occupied by robots, or by robot designers and manufacturers,” says Ruben Polanco, 13. Ruben is an eighth-grader at Del Rio Middle School in Del Rio, Texas.

Sara Ramsey, 14, is not concerned about the types of jobs that will be in demand in the future. “I want to have a job I love doing, not a job that everyone expects me to do,” says the ninth-grader at Richland High School in Essex, Missouri. “I think people should choose their job by what they want to do, not because there is higher pay or more opportunities.” —*Jennifer Dignan*

## Think About It

1. What technology jobs might be created in the next decade?
2. What types of jobs interest you most? Why?

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