

Child Care Today

Career Profiles

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Louise Bates Ames



Name: Louise Bates Ames
Life Statistics: 1908 (Portland, ME)—
 October 31, 1996 (Cincinnati, OH)
Title: Child Psychologist
Education: B.S. and M.S., University of
 Maine; Ph.D. in Experimental Psychology,
 Yale University, 1936

Louise Bates Ames was the oldest of three children. She and her two brothers lived a privileged childhood in a secure neighborhood where “everybody knew everybody.” Her father, Judge Samuel Bates, was strict; however, she admired him greatly. He helped his children appreciate nature by taking them on frequent hikes to learn about trees and flowers. He also encouraged them to achieve academically.

Following in her father’s footsteps, Ames entered Wheaton College majoring in law. She spent two years at Wheaton before transferring to the University of Maine. During her senior year, she eloped and took a year off to enjoy parenthood. Upon marrying, Ames reasoned that an education and career in law would

take too long, so she chose to major in child psychology and minor in education.

While pursuing her Ph.D. at Yale, she became interested in the work of Dr. Arnold Gesell. She agreed with his theory that children develop through phases. Dr. Frances Ilg shared these beliefs as well, and the three became close associates. In 1933, Ames became Gesell’s research assistant at the Yale Clinic of Child Development. Unfortunately, the university did not share their enthusiasm for clinical and child psychology. Yale was focused on experimental psychology and ultimately closed the clinic.

In 1950, Ames joined Dr. Ilg and Janet Rodell in establishing the Gesell Institute of Human Development. Through the institute, Ames spoke with parents about the biological verses environmental influences on child development. She eventually took to writing books and newspaper columns, as well as speaking on television to share her theories and encourage schools to place children in grades according to developmental levels rather than ages.

CAREER FACTS

Child Psychologist

Child psychologists may choose careers in research or clinical counseling.

Key Skills: Although Louise Bates Ames conducted a vast amount of research during her career, many child psychologists choose careers in clinical psychology. Regardless of the path chosen, child psychologists must enjoy being around children. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. You’ll also need good communication skills in order to explain your thoughts to both children and the adults in their lives. Likewise, you’ll need to get along well with others to ensure happy working conditions among you and your staff.

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Career Profile
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CAREER FACTS CONTINUED

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, psychologists, including child psychologists, earn an annual average of \$70,490 nationally.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of available psychologist positions is expected to grow by 12 percent through 2018.

Follow-Up!

Do you believe children should be placed in classes according to age or should they be tested and placed according to their developmental levels? Explain your opinion in a short essay.

Alfred Binet



Name: Alfred Binet
Life Statistics: July 8, 1857 (Nice, France)—1911 (Paris, France)
Title: Research Psychologist
Education: Law degree, 1878; studied natural sciences at Sorbonne University in Paris; self-taught in psychology

Alfred Binet was the only child of a doctor and his wife. It is believed that Binet was strongly encouraged to follow in his father's footsteps to become a physician. Perhaps out of spite, he opted to study law. However, after receiving his law degree, he discovered that field did not appeal to him. He began to study science at Sorbonne, and at the same time, began reading psychology books at the National Library in Paris.

In 1883, Binet took a job at a neurological clinic and began studying hypnosis. At that time, hypnosis was strongly criticized, and by 1890 he left the clinic to study thought processes using his daughters as subjects. A year later he took a job at Sorbonne, and in 1894 became the director of the research laboratory.

Binet recognized a connection between biology and psychology, which helped him and Theodore Simon develop intelligence testing. They tried to find a way to identify children who may need extra help in learning. In 1904, when Binet was studying the challenges of school children in France with mental retardation, he decided a test based on tasks of increasing difficulty may help identify children with special needs.

In 1905, Binet started a laboratory in which he and Simon conducted research until they published the Binet-Simon intelligence scales in 1908. Through testing and scoring, students were scaled and compared to an expected developmental level for normal students of their age. If results scaled students more than two years below their age, the students were to receive additional testing and educational assistance. Later, Binet suggested that the tests could also be used to examine students of average or above average ability.

Binet believed that intelligence could be attained—it is not determined by heredity or other factors. This belief prompted him to create exercises to strengthen the mental abilities of students.

CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. Like Alfred Binet, a psychologist may conduct research on the human mind, educate others, or practice clinical psychology through counseling.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue and/or patient long-term are vital. To ensure happy working conditions, you'll need the ability to get along well with others.

Average Salary: \$72,310 nationally with experience.

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Career Profile
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CAREER FACTS CONTINUED

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of positions available in psychology fields is expected to grow by 12 percent through 2018.

Follow-Up!

Using yourself as an example, write a report explaining why you agree or disagree with Binet's theory that intelligence is not determined by genetics and other predetermined factors.

Benjamin Bloom



Name: Benjamin Bloom
Life Statistics: February 21, 1913 (Lansford, PA)—September 13, 1999 (Chicago, IL)
Title: Postsecondary Education Teacher (Professor)
Education: B.A. and M.S., Pennsylvania State University, 1935; Ph.D. in Education, University of Chicago, 1942

Benjamin Bloom started his career as a Board of Examinations staff member at the University of Chicago from 1940 to 1943. From 1943 until 1959, he served as the University Examiner. Also during that time, he taught in the Department of Education at the University. He maintained the teaching position, and in 1970 was appointed Charles H. Swift Distinguished Service Professor. He also served as an educational advisor to the governments of several nations, including Israel and India.

While Bloom's education and the positions he held could stand alone as an impressive résumé, he is best known for his contributions to the world of teaching techniques. He did not believe in a difference between gifted students and non-gifted students. He believed that all children could be successful in school if their differences were understood and accepted.

In regard to education objectives, Bloom believed that a task stimulates one of three domains:

- **The cognitive domain** enables you to recognize and understand ideas.
- **The affective domain** involves the thoughts and feelings that are a result of following learning processes.
- **The psychomotor** domain focuses on physical skills.

While he realized that each of the domains was important, he focused his studies on creating a six-level hierarchy for cognitive development. Bloom's Taxonomy of Cognitive Domain implies that what educators want students to learn can be arranged in stages from less to more complex.

1. **Knowledge**—Teachers will use instructions such as list, name, define, or label to ensure a student can recall dates, ideas, and places. At this phase, teachers want students to grasp major ideas and remember the form in which they were taught.
2. **Comprehension**—In asking students to explain, summarize, describe, or illustrate, teachers hope students can translate and interpret information that was explained to them at an earlier date.
3. **Application**—At this level, teachers may ask students to solve, calculate, illustrate, change, or construct. In doing so, teachers want students to use information that was provided earlier to solve a problem.
4. **Analysis**—Students at this level of learning should be able to identify patterns, organize pieces, and recognize hidden information when teachers ask them to connect, analyze, order, categorize, and separate.
5. **Synthesis**—Teachers may ask students at this level to create, design, invent, compose, or develop something. In doing so, they hope students will use old ideas to create new ones, draw upon knowledge from several areas, and predict conclusions.
6. **Evaluation**—Students at this level are expected to make choices based on standards or criteria, recognize subjectivity, compare/discriminate among ideas, and appraise/assess theories. Teachers may ask students to rank, grade, measure, recommend, and critique.

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Career Profile
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*Continued***CAREER FACTS****Postsecondary Education Teacher (Professor)**

Education professors teach college courses related to education, including counseling, guidance, instruction, teacher education, and more. As educational instructors, professors use interactive discussions and hands-on situations to help students learn. In addition to teaching, professors like Benjamin Bloom also conduct research.

Key Skills: As with many other occupations, it is important to enjoy being around and communicating with people to consider a career in education. Professors are generally very organized individuals. They are skilled at problem solving, conflict resolution, and record keeping. Research professors like Bloom also enjoy studying, experimenting, and tracking results.

Average Salary: \$62,160 nationally with experience.

Education/Training: Most colleges and universities require professors to hold Ph.D. degrees. Doctoral degree holders are usually considered for full-time, long-term positions; however, master degree holders may be considered for part-time or temporary positions. Candidates that do not hold doctoral degrees may also be considered for assistant professor or instructor positions.

Employment Opportunities/Outlook: The number of available college and university faculty positions is expected to grow 15 percent through 2018.

Follow-Up!

What level of development do you believe you are in today? Using examples of tasks that you have completed, explain why you are at this level.

Dr. T. Berry Brazelton



Name: Dr. T. Berry Brazelton
Life Statistics: May 10, 1918 (Waco, TX)—
 Current
Title: Pediatrician
Education: M.D., Columbia University
 College of Physicians and Surgeons, 1943

T. Berry Brazelton is a respected authority on family and child development. Although he may be best known for his books and television shows on child development, he has led a remarkable career in pediatric education and research.

Upon graduating from Columbia University, Brazelton accepted a medical internship there. Two years later, he moved to Boston to serve his residency at Massachusetts General Hospital. Thereafter, he completed pediatric training at Children's Hospital and child psychiatric training at Massachusetts General Hospital and the James Jackson Putnam Children's Center.

Throughout his career, he has held many professional positions, partnered with multiple organizations dedicated to child care, and researched numerous issues, including:

- Individual differences among newborns.
- Relationships between parents and infants in their first four months together.
- Cross-cultural variations in infant behavior and early parenting practices.
- The importance of early intervention to at-risk infants and their parents.

- Brazelton is also known for taking a national stand toward improving family bonds. He has appeared in front of congressional committees in support of parental and medical leave bills. He worked to improve child care support for working parents, and was appointed by Congress to the National Commission on Children where he encouraged support for disadvantaged children.

In professional circles, Brazelton may be best known for developing the Neonatal Behavioral Assessment Scale (NBAS). This evaluation tool is used worldwide to examine individual behavior differences among infants from birth to two months of age. NBAS uses 28 behavioral and 18 reflex tests to assess infant development. The scale can be used to identify the effects of drug abuse during pregnancy, caesarian section versus natural childbirth, and other variables. It is also used to help parents relate to their newborns.

Brazelton is a past president of the Society for Research in Child Development and the National Center for Clinical Infant Programs. He was also appointed a clinical professor of pediatrics, emeritus at Harvard Medical School in Boston.

Brazelton's name and career are celebrated through the Brazelton Institute at the Department of Pediatrics at the Children's Hospital in Boston—a Harvard Medical School affiliate. The institute is dedicated to research and education programs for parents and providers caring for infants.

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Career Profile
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*Continued***CAREER FACTS****Pediatrician**

Although T. Berry Brazelton is best known for researching and advocating healthy child development, he is also a pediatrician—a doctor who specializes in the care of children from infancy through adolescence.

Key Skills: A love of children and a desire to practice medicine are vital keys to becoming a pediatrician. Good communication skills are also very important. Pediatricians need to be able to talk with the children they are treating as well as the adults who care for those children. Like all doctors, pediatricians must be willing to study throughout their career in order to stay updated on new medical advances and technology. These doctors must also possess quick decision-making skills, good bedside manner, emotional stability, and self-motivation.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, pediatricians earn an annual average of \$161,410 nationally.

Education/Training: After graduating from college, future pediatricians must attend four years of medical school, and participate in a residency/internship program that could last from three to eight years.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for physicians, including pediatricians, is expected to increase 22 percent through 2018.

Follow-Up!

Compare Dr. T. Berry Brazelton's pediatric career in research with the careers of traditional pediatricians. Then, write a short essay on why you would or would not be well-suited for a career in pediatrics.

Urie Bronfenbrenner



Name: Urie Bronfenbrenner

Life Statistics: April 29, 1917 (Moscow, Russia)—September 25, 2005 (Ithaca, New York)

Title: Research Psychologist

Education: B.S. in Psychology and Music, Cornell University 1938; M.A. in Developmental Psychology, Harvard; Ph.D., University of Michigan, 1942

Urie Bronfenbrenner, born in Moscow in 1917, moved to the United States at the age of 6. After arriving in the U.S. his father took a position at a New York state institution as a physician and neuropathologist. Bronfenbrenner remembered his father's concern for children who were placed in homes for the mentally retarded based on scores gathered from a single intelligence test. Perhaps it was this memory that prompted Bronfenbrenner to seek a career in psychology.

After graduating from high school in Haverstraw, N.Y., he entered Cornell University majoring in psychology and music. After receiving his bachelor's degree, he went on to receive an M.A. in developmental psychology at Harvard and a Ph.D. from the University of Michigan.

The day after graduation Bronfenbrenner entered the Army and served as a psychologist in a variety of assignments during World War II. Thereafter, he spent two years as an assistant professor at the University of Michigan before accepting a position at Cornell in 1948. Bronfenbrenner remained at Cornell throughout his career and was the Jacob Gould Sherman Professor Emeritus of Human Development and Family Studies and of Psychology.

Bronfenbrenner was most known for his theory of social ecology, which states that interactions between a person and the environment strongly influence development. He believed that we all live among the following environments.

- **The Microsystem** includes family, classmates, coworkers, etc. This is the environment in which we operate from one minute to the next.
- **The Mesosystem** includes two microsystems interacting. For you, this may be the connection between home and school. For adults, it may include home and office.
- **The Exosystem** is an environment in which we have no direct involvement. Even so, this environment continues to affect our development. This environment may include your parents' workplaces. Even though you may never visit the workplaces, the happenings there do affect you. For instance, parents who work late may not see their children until late evening. Meanwhile, other parents may work shorter days and spend more time with their children after school. While neither situation is right or wrong, each is likely to affect child development differently.
- **The Macrosystem** is the most removed from our development. It includes the world and cultures around us.

According to Bronfenbrenner's theory, each of these environments includes roles, norms, and rules. Naturally, a person acts differently in different environments. People are generally more comfortable at home than at school or work. However, the more compatible these environments are, the more likely a person is to develop smoothly. For instance, if parents guide their children to try their hardest and show respect for others, those children are likely to do well in all environments.

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Career Profile
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CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. A psychologist may conduct research on the human mind, educate others, or practice clinical psychology through counseling.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. To ensure happy working conditions, you will need the ability to get along well with others.

Average Salary: \$72,310 nationally with experience.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of available psychologist positions is expected to grow by 12 percent through 2018.

Follow-Up!

Considering your own life, make a list of places, people, and things that fit into each of the four environments described by Urie Bronfenbrenner.

David Elkind



Name: David Elkind
Life Statistics: March 11, 1931 (Detroit, MI)—
Current
Title: Child Psychologist
Education: B.A. in Psychology, UCLA; M.A.
in Psychology, Veteran's Administration
Clinical Psychology Training Program; Ph.D.
in Psychology, Veteran's Administration
Mental Hygiene Clinic in Los Angeles, CA

David Elkind is the youngest of six children born to Jewish immigrants who fled from Russia. The family lived in a three-bedroom apartment in Detroit. Elkind was an avid reader, but was not pressured by his parents to achieve in school. He attended elementary and junior high school in Detroit. Following World War II, the family moved to California, and Elkind attended high school in Los Angeles.

Because he was working for a small clothing manufacturer at the time, he chose to enter UCLA with a major in Apparel Merchandising. During his freshman year, Elkind earned all A's, except for one B. His B grade came in a subject that was required for his major, which prompted him to consider other career options. A class in psychology sparked his interest in the subject, and he became a psychology major as a sophomore. He went on to graduate with high honors.

Realizing there were few jobs available for those with bachelor's degrees in psychology, he attended graduate school through the Veteran's Administration's Clinical Psychology Training Program. He received his doctorate from the VA Mental Hygiene Clinic in Los Angeles.

Following graduation, Elkind accepted a post-doctoral fellowship at the Austin Riggs Center in Stockbridge, Mass. During this fellowship, Elkind found his career calling. He admired Jean Piaget's theory of mental growth

stages in child development, but felt that Piaget's experiments did not follow appropriate standardization practices. For example, they did not use random subject samples. Elkind set out to standardize Piaget's studies and prove them wrong. However, Elkind found Piaget's conclusions were accurate despite their lack of standardization.

Piaget's work helped Elkind solve his indecision between doing clinical work that he felt was meaningful and research. By conducting research in child development, he felt he was satisfying both of his professional desires. Throughout his career, Elkind continued to research Piaget's findings. He even updated Piaget on his studies from time to time.

Apparently honored by Elkind's interest, Piaget invited Elkind to study with him in Geneva, Switzerland in 1964. While in Geneva, Elkind observed Piaget's classes on developmental psychology, conducted research, and performed clinical work. His interest in Piaget's work has never faded.

Expanding upon Piaget's research, Elkind is most famous for his theory that pressuring children to grow up quickly forces them to move through the developmental stages of growth before each stage is fully completed. This rush to push children through development causes frustration among children and can have a negative influence on their emotional, intellectual, and social relations.

Elkind's findings prompted him to write a 1979 article for *Psychology Today* magazine entitled "Hurried Children." The article gathered so much interest in the subject that he released a book under the same title in 1981. It was an instant success. Elkind has written 13 successful books on development. His famous titles include "All Grown Up and No Place to Go: Teenagers in Crisis," "Miseducation: Preschoolers at Risk," and "Ties That Stress: A New Family Imbalance."

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Career Profile

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In addition to authoring successful books, Elkind has started impressive programs and held many important positions throughout his career. Following his return from studying with Piaget in Geneva, Switzerland, he accomplished the following:

- **1966**—University of Rochester, MN—Served as professor and helped start a child-development training program.
- **1972**—University of Rochester, MN—Opened Mt. Hope School to assist “curriculum disabled” children who are not functioning at grade level.

- **1978**—Tufts University, Boston—Served as professor and chairperson of the Eliot Pearson Child Study Department.
- **1983**—Tufts University, Boston—Became Senior Resident Scholar at the Lincoln Filene Center.

Today, Elkind is a Professor Emeritus of child development at Tufts. He continues to devote himself to his role as a child advocate by writing and speaking frequently.

CAREER FACTS

Child Psychologist

Child psychologists may choose careers in research or clinical counseling. David Elkind pursued both career paths during his career.

Key Skills: To consider a clinical career in child psychology it is very important to enjoy being around and helping children. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. You will also need good communication skills in order to explain your thoughts to both children and the adults in their lives. Likewise, you will need to get along well with others to ensure happy working conditions among you and your staff.

Careers in research require dedication to the subject. Researchers spend years performing experiments and documenting their findings. They may share their conclusions with others by writing journal articles, speaking at conventions, etc.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, child psychologists earn an annual average of \$70,490 nationally.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for psychologists is expected to grow 12 percent through 2018.

Follow-Up!

Reflecting upon David Elkind’s career, write an essay on the ways in which children are encouraged to grow up too quickly. Explain why you believe this is or is not a concern.

Erik H. Erikson



Name: Erik H. Erikson

Life Statistics: June 15, 1902 (Frankfurt, Germany)—May 12, 1994 (Harwich, MA)

Title: Research Psychologist

Education: Graduate of art school; Certificate in Montessori education; Certificate from Vienna Psychoanalytic Institute

Erik Homberger Erikson's biological father abandoned his mother Karla Abrahamsen before Erikson was born. His mother later married Erikson's pediatrician, Dr. Theodor Homberger, and Erikson took the last name of Homberger. When he became a United States citizen in 1939, he changed his name to Erik Erikson.

After graduating from high school, Erikson lived the life of a rebel. When he was not studying art, he roamed around Europe visiting museums and sleeping outdoors. At the age of 25, he applied for a teaching job at a Vienna school for American students, which was managed by a friend of Anna Freud (Sigmund Freud's daughter). While there, Anna Freud psychoanalyzed Erikson and sparked his interest in psychoanalysis. Around the same time, Erikson married Joan Serson. They had three children.

When the Nazis starting gaining power in Europe, Erikson and his family left Vienna for Copenhagen, and later came to Boston. After coming to America, he studied modern life among Native American Indians and their children. He also practiced child psychoanalysis privately and held positions at Harvard Medical School, Yale University, and the University of California at Berkeley.

Erikson is famous for expanding upon Freud's theory of human development. While Freud made it clear that parents greatly influence their children's development, Erikson

believed that children also influenced their parents' development. That is why he added three stages to Freud's theory.

- 1. Infancy—Trust vs. Mistrust**—At this stage, people depend upon others to meet their needs. If their needs are met time after time, the child will learn to trust people and his or her surroundings. However, Erikson believed a certain level of mistrust should remain in all of us. People will become too dependent upon others if every single want is granted to them.
- 2. Toddler—Autonomy (Independence) vs. Shame and Doubt**—When praised for walking, talking, etc., toddlers gain self-confidence. On the other hand, if parents are disapproving or over-protective, children may feel ashamed or doubt their abilities.
- 3. Early Childhood—Initiative vs. Guilt**—Children in this stage need to learn balance between seeking adventure and taking responsibility. Parents should encourage, yet consistently discipline, their children between the ages of two and six. Through consistent parenting, children will realize that certain actions are not acceptable, but they will not feel ashamed for using their imagination.
- 4. Elementary and Middle School Years—Competence vs. Inferiority**—While leaving the security of home, school-aged children begin acquiring the knowledge and skills necessary to succeed in life. Children that enjoy learning and completing tasks or assignments will likely feel competent in life.
- 5. Adolescence—Identity vs. Role Confusion**—If children successfully pass the previous stages, they are ready to consider this stage, which Erikson believed to be the most important. At this point, teens try to find their place in the world. He cautions people to take their time through this stage. Those who slowly find their identity come out of this stage ready to create a solid future. Those in a hurry to

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Career Profile

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find success may become confused if they are unable to “find themselves.” These individuals may join socially unacceptable groups (cults, gangs, etc.) with the idea that it is better to be a “bad” person than to be confused about their own identity. However, they are likely to have ongoing problems making decisions about careers, mates, and more.

6. Young Adulthood—Intimacy vs. Isolation— Once people develop a sense of identity, they are ready to develop intimate relationships. According to Erikson, those who do not create an identity will fear commitment, and will choose a life isolated from companionship.

7. Middle Adulthood—Generativity vs. Stagnation— Generativity means showing concern for future generations. According to Erikson, children need adults and adults need children. People can choose generativity by having children or by helping younger generations in other ways. If not, people will remain self-centered and live in stagnation.

8. Late Adulthood—Integrity vs. Despair— After the age of 65, people reflect upon their lives. Those who recall a life filled with satisfaction will accept death with integrity. Those who view their lives as void or worthless will enter despair and fear death.

CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. A psychologist may research behavior, educate others, or practice clinical psychology by counseling people.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. To ensure happy working conditions, you will need the ability to get along well with others.

Average Salary: \$72,310 nationally with experience.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of positions available in psychology fields is expected to grow steadily by 12 percent through 2018.

Follow-Up!

Consider a friend, relative, or acquaintance. Write a report on which stage you believe that person falls in Erikson’s eight stages of development.

Sigmund Freud



Name: Sigmund Freud

Life Statistics: May 6, 1856 (Moravia, Czech Republic)—September 23, 1939 (London, England)

Title: Neurologist, Psychoanalyst, Physician

Education: M.D., University of Vienna, 1881

Sigmund Freud was around four years old when his family moved to Vienna. At age 17, Freud began studying medicine at the University of Vienna. He also conducted research at the school from 1876 to 1881. He enjoyed research, but realized a medical doctorate degree could grant him a better income. He received his M.D. in 1881.

After studying in Paris under the famous neurologist Jean Charcot from 1885 to 1886, Freud returned to Vienna and opened a private neurology practice. In the same year, he married Martha Bernays. The couple had six children. They lived in Vienna until 1938 when the Nazi invasion forced them to move to England. Freud died of cancer in 1939.

Freud's life may seem relatively ordinary, but his theories were not. Even today, he is most recognized for his controversial theories on sexuality and development. Freud believed that the human sex drive is our most motivating force. He believed this to be true even among infants and children. In his description, sexuality included all pleasurable touching. Following that thought, he developed the theory of stages. According to Freud, children develop through these stages.

1. **Oral Stage**—From birth to around 18 months of age, children focus on mouth sensations. They frequently put things in their mouths that they enjoy sucking and biting.
2. **Anal Stage**—From 18 months to four years of age, children (with the help of potty-training efforts) focus on bodily functions.

They take interest in holding and eliminating waste.

3. **Phallic Stage**—From four to seven years of age, children begin to realize the differences between males and females.
4. **Latent Stage**—From age seven to puberty, Freud believed children were focused on learning. Sexual interest is low during the latent stage.
5. **Genital Stage**—Beginning in puberty, people refocus on sexual sensations, specifically those associated with reproduction.

Assuming all goes well throughout these stages, people will grow into well-adjusted adults. However, because each stage is associated with tasks, such as weaning, potty training, etc., problems, or fixations, may arise. A fixation represents a long-term effect on personality or character that results from a problem that occurred at one of Freud's five stages of development.

- **Oral Fixations.** An oral-passive character may result in people that were frustrated by their need to suckle. Perhaps they were weaned too early. The result is a person who continues to need oral gratification. These individuals may become dependent on smoking, drinking, eating, or other oral pleasures. Whereas, an oral-aggressive character may be the result of a problem during teething. These individuals may have been punished for biting something they should not have (e.g., a finger). These people may retain pleasure from biting pencils, ice, gum, etc., or they may retain a biting personality like aggressiveness.
- **Anal Fixations.** Children who were treated like royalty when they successfully used the toilet during toilet training, may develop an anal-expulsive, or anal aggressive, personality. They were begged to use the toilet, then cheered endlessly when they did it right. They felt they could do no wrong. In adulthood,

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Career Profile

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these individuals can be disorganized, sloppy, cruel, destructive, etc. On the other hand, children who were punished or humiliated when they did not act accordingly during toilet training may develop an anal-retentive personality. As children, they tried desperately to avoid the punishment, and as a result, they often became constipated. In adulthood, these individuals are often perfectionists, stubborn, stingy, and very tidy.

Freud was not only famous for his controversial theories, but also for the books that he published and the contributions he made to

the psychiatry arena. His book entitled “The Interpretation of Dreams” (1900) was highly regarded. “Three Essays on the Theory of Sexuality” (1905) divided him further from conventional psychiatry of the time, but also established loyal followers of his beliefs.

In 1908, Freud established the International Psychoanalytical Association (IPA). Today, IPA boasts more than 10,000 members in over 30 countries. IPA, in partnership with other organizations, trains, supports, and networks with psychoanalysts.

CAREER FACTS

Physician

While Sigmund Freud spent much of his time researching and is most famous for his psychoanalytical theories, he was also a medical doctor.

Key Skills: A love for people and a desire to practice medicine are vital keys to becoming a physician. Doctors must have good communication skills to discuss medical problems and procedures in terms that all people can understand. Doctors must be willing to study throughout their career in order to stay updated on new medical advances and technology. These doctors must also possess patience, quick decision-making skills, good bedside manner, emotional stability, and self-motivation skills.

Average Salary: \$173,860 nationally with experience.

Education/Training: After graduating from college, future physicians must attend four years of medical school, and participate in a residency/internship program that could last from three to eight years.

Employment Opportunities/Outlook: The number of positions available for physicians is expected to grow by 22 percent through 2018.

Follow-Up!

Write an essay on why you agree or disagree with Freud’s theory of stages.

Frederick Froebel



Name: Frederick Froebel
Life Statistics: 1782 (Oberwebach, Germany)—1852 (Mariental, Germany)
Title: Teacher
Education: Studied mineralogy in Jena, Germany

Meet Frederick Froebel—the founder of kindergarten.

His mother died when he was an infant. His father, the pastor of an important Lutheran parish, remarried a woman who did not love Froebel. Froebel was sent to live with his mother's brother. Although Froebel realized many hardships at a young age, he maintained his faith and love of nature. In fact, his love of nature is said to have been the center of his educational philosophy.

After attending college, Froebel began teaching. He taught at Frankfurt, but it may have been his role in the education of his deceased brother's sons that moved him toward the concept of kindergarten. He noted that each child was different, like each flower of a bouquet. The children needed varied care, but blossomed when joined in groups of their peers. "My school shall be called kindergarten—the garden of children," he decided.

Through kindergarten, he hoped to inspire an appreciation for children. He also planned to provide children with a small world in which they could experience independence while at the same time interact with children of their own age. Serving as a bridge between home and community, Froebel's kindergarten centered on four components:

1. Free self-activity.
2. Creativity.
3. Social participation.
4. Motor expression.

Froebel believed these components helped children learn about becoming a member of society, while giving them opportunities to help others, take responsibility for their own actions, and build determination. To accomplish these goals, he introduced children to songs and games, construction, and gifts (or play materials), and occupations.

Among the gifts were three common solids (sphere, cube, and cylinder) suspended in the air to enable children to examine their properties by rotating, spinning, and touching them. Froebel also fashioned the shapes with multiple loops so the children could suspend and examine the objects from different points of view. He believed that by examining geometric solids, children could develop specific perspectives on reality.

According to Froebel, the gifts start with the sphere, then move over surfaces to lines and points. The occupations, on the other hand, move from points and lines back to two-dimensional surfaces and three-dimensional solids. Paper cutting, paper folding, weaving, drawing, and clay modeling were among the occupations he introduced to children. The same materials and activities are still used today in kindergarten programs throughout the world.

After founding the Universal German Educational Institute to train teachers in 1816, Froebel opened his first kindergarten in 1837. The first American kindergarten was established in 1856.

Poor children in the 1860s typically attended school for three years before beginning work at the age of 10. In the 1870s, kindergarten supporters suggested that educating children could help eliminate urban poverty. They not only hoped to teach poor children about cleanliness and responsibility, but also teach working class mothers about Froebel's techniques.

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Career Profile

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In doing so, the children and mothers could teach middle-class ideals to their families. In the end, the teachings would help eliminate future generations of deprived people and criminals.

In 1873, Susan Blow opened the nation's first public kindergarten in St Louis, MO.

Using Froebel's techniques, she became instrumental in establishing kindergartens throughout America. By the 1920s kindergartens were included in most public schools nationwide.

CAREER FACTS

Elementary School Teacher

Kindergarten and elementary school teachers play vital roles in child development. What children learn and experience at a young age affects their views of the world, and may influence their success or failure in later years of school, work, and life.

Key Skills: Elementary school teachers must enjoy working with children. Patience and creativity skills are vital. They must also possess good communication, organizational, problem-solving, conflict-resolution, and record-keeping skills.

Average Salary: \$53,150 with experience.

Education/Training: Frederick Froebel's educational background is sketchy, but it is safe to assume that he taught students using information obtained through extensive observation of children. Teachers in his generation probably were not required to attend college and receive degrees. Today, teachers must receive a bachelor's degree, attend an approved teacher-training program, and participate in supervised practice teaching before teaching a class on their own. Public school teachers must also be licensed to teach. Further requirements vary by state.

Employment Opportunities/Outlook: The number of positions available for elementary school teachers is expected to grow by 13 percent through 2018.

Follow-Up!

Write an essay on why you agree or disagree kindergarten has a positive effect on children.

Howard Gardner

Career Profile
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Name: Howard Gardner
Life Statistics: July 11, 1943 (Scranton, PA)—
Current
Title: Research Psychologist
Education: B.A., Harvard University, 1965;
Ph.D., Harvard University, 1971

Howard Gardner is the son of refugees from Nazi Germany. He grew up having a great interest in learning. Today, the interest continues through his research.

By training as a developmental psychologist and later as a neuropsychologist, Gardner first developed an interest in the relationship between art and human development. From 1972 to 2000, he served as a co-director of Harvard's Project Zero—a research group that was founded in 1967 to investigate learning processes of children, adults, and organizations.

Gardner continues to be active with Project Zero. While the group has always held a strong focus on art, currently it is expanding its focus to include all areas of education for individuals, classrooms, schools, and organizations.

Gardner has certainly made a name for himself in the psychology arena through his involvement with Project Zero and as the author of multiple books. However, most of his fame is attributed to his theory of Multiple Intelligences (MI). Through this theory, Gardner explains his belief that human intelligence cannot be judged through a single IQ test or a series of tests.

He believes that we all possess intelligences that cannot be measured. Originally, he identified seven types of intelligence. Adding naturalistic to the list, he now believes that at least eight different types exist. According to

Gardner, every person (who is not mentally impaired) possesses all of these intelligences in some capacity. While individuals are undoubtedly stronger in some areas and weaker in others, we all function by using a combination of these intelligences.

- 1. Linguistic intelligence** refers to a person's understanding and use of words and language, including sign language and foreign languages. Linguistically strong students enjoy outlining, editing, proofreading, listening, reading, and writing.
- 2. Logical-mathematical intelligence** is strong in people who use and appreciate abstract relations, such as sequences, shapes, statistics, equations, etc.
- 3. Musical intelligence** revolves around a person's interest in creating, communicating, and understanding sounds. Musically strong students enjoy listening to birds outside, identifying computer sounds, creating rhymes, and learning from songs and poetry.
- 4. Spatial intelligence** enables people to understand visual and/or dimensional information. People who are spatially strong enjoy working with charts, graphs, pictures, maps, etc.
- 5. Bodily-kinesthetic intelligence** encourages people to use all or part of the body to create things and solve problems. Students who are strong in bodily-kinesthetic intelligence enjoy hands-on projects, physical education, and games.
- 6. Interpersonal intelligence** is usually strong in people who thrive on person-to-person or group interaction. These individuals tend to identify how other people feel. They are able to understand others and react to their feelings.

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7. Intrapersonal intelligence refers to our ability to understand ourselves. People with high intra-personal intelligence recognize and utilize their own strengths and weaknesses. They enjoy time alone and prefer to make their own decisions.

8. Naturalistic intelligence enables people to appreciate, respect, and learn from the environment. Students who are strong in naturalistic intelligence enjoy studying weather, animals, plants, planets, etc.

CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. A psychologist may conduct research on the human mind, educate others, or practice clinical psychology through counseling.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue or patient long term are vital. To ensure pleasant working conditions, you will need the ability to get along well with others.

Average Salary: \$72,310 with experience.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of available psychologist positions is expected to grow by 12 percent through 2018.

Follow-Up!

Consider Howard Gardner's eight types of intelligence. Create a list of professions that coordinate with each intelligence. For instance, a farmer is likely to be strong in naturalistic intelligence.

Arnold Gesell



Name: Arnold Gesell

Life Statistics: June 21, 1880 (Alma, WI)—
May 29, 1961

Title: Pediatrician and Psychologist

Education: B.S., University of Wisconsin;
Ph.D., Clark University, 1906; M.D., Yale
University, 1915

Arnold Gesell believed biological factors, rather than environmental factors, were the keys to child development. Although his theories were mostly rejected in later years, he was considered America's authority on child rearing in the 1940s and 1950s.

After receiving his medical doctorate degree from Yale in 1915, Arnold Gesell became an assistant professor at the university. While holding that position, he founded the Clinic of Child Development and served as its director from 1911 to 1948. Through the clinic, Gesell studied mental abnormalities in children, such as retardation, Down's syndrome, and cerebral palsy. In doing so, he soon realized that in order to understand

abnormal development, he must first understand normal development.

In the mid 1920s, Gesell became the first researcher to use motion-picture cameras to closely study development among infants and children. He also pioneered the use of one-way glass to observe children without being noticed.

Through his studies, he developed the Gesell Developmental Schedules. These tests use standardized materials to measure the physical, emotional, and behavioral development of children between 4 weeks and 6 years of age. Observing responses to the materials, Gesell first assigned a developmental age (DA) to each child. The DA was then converted to a developmental quotient (DQ), which represented "the portion of normal development that is present at any age."

In the 1940s and 1950s, DQs were used to measure children's intelligence. While Gesell's theories were innovative for his time, they have since been replaced by theories that include environmental elements as factors of human development.

CAREER FACTS

Pediatrician

Although Arnold Gesell is best known as a psychologist for his findings on child development, he was also a pediatrician—a doctor who specializes in the care of children from infancy through adolescence.

Key Skills: A love of children and a desire to practice medicine are vital keys to becoming a pediatrician. Good communication skills are also very important. Pediatricians need to be able to talk with the children they are treating as well as the adults who care for those children. Like all doctors, pediatricians must be willing to study throughout their career in order to stay updated on new medical advances and technology. These doctors must also possess quick decision-making skills, good bedside manner, emotional stability, and self-motivation.

Average Salary: \$161,410 nationally with experience.

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CAREER FACTS CONTINUED

Education/Training: After graduating from college, future pediatricians must attend four years of medical school, and participate in a residency/internship program that could last from three to eight years.

Employment Opportunities/Outlook: The number of positions available for physicians (including pediatricians) is expected to grow by 22 percent through 2018.

Follow-Up!

Do genetics and/or other biological factors determine a person's intelligence? Do environmental factors determine intelligence? Do both biological and environmental factors team together to determine a person's intelligence? Explain your opinion in a short essay.

Roger L. Gould

Career Profile
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Name: Roger L. Gould
Life Statistics: June 17, 1935 (Milwaukee, WI)—Current
Title: Psychologist
Education: B.S., University of Wisconsin at Madison; M.D., Northwestern University, 1959; M.S. in Psychiatry, UCLA, 1965

Roger Gould grew up with little encouragement from his family, yet went on to achieve great things. Upon graduating from UCLA in 1965, Gould became the director of the university's Neuropsychiatric Institute Outpatient Department. He was employed there for five years. During that time he began his lifelong focus on adult development.

Since 1970, he has served as an associate clinical professor at UCLA, and operated a private psychiatry practice. Since 1979, he has been the president of Gould Medical Associates, and the chief executive officer of Interactive Health Systems.

Through Interactive Health Systems, Gould produces *Therapeutic Learning Program* (TLP) software. When supplemented by brief visits to a therapist, TLP is designed to help people who are experiencing depression, stress, and other psychiatric problems. The software helps people see patterns in

their behavior and find ways to correct problem behaviors.

Studies conducted by Gould and his associates show that TLP software is as effective as traditional therapy. They believe cost-effective, self-help software like TLP is sure to positively influence psychiatry.

TLP may be Gould's newest focus; however, he is most famous for his theory of adult development. According to Gould, adults progress through a series of phases.

- **Age 16-22—Leaving our parent's home.** During this phase, adults seek independence and begin building their own identity.
- **Age 22-28—We're all grown up.** During this phase, we realize that doing things "our parent's way" will not guarantee success. We also understand that our parents can no longer bail us out.
- **Age 28-34—Life isn't fair.** We realize life is not simple, nor is it controllable. At this point, we may question our earlier goals and re-evaluate our lives.
- **Age 34-45—Middle-age is here.** For some people, this is a decade of discontentment. We begin to realize our own mortality.
- **Age 45 and older—Over the hill.** During this final phase of adulthood, we realize what we have accomplished, appreciate what we have, and accept our fate.

CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. A psychologist may conduct research on the human mind, educate others, or practice clinical psychology through counseling.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. To ensure happy working conditions, you'll need the ability to get along well with others.

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CAREER FACTS CONTINUED

Average Salary: \$72,310 with experience.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of available psychologist positions is expected to grow by 12 percent through 2018.

Follow-Up!

Consider Roger Gould's stages of adult development. Given the goals you have now, write a short report outlining your expectations for each life stage. Include predictions for your career and personal life.

Lilian Katz

Career Profile
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Name: Lilian Katz

Life Statistics: June 7, 1932 (London, England)—Current

Title: Professor

Education: B.A., Social Sciences, San Francisco State College (1964); Ph.D. in School Education (Psychological Studies), Stanford University (1968)

Times were tough for Lilian Katz and her family during the Great Depression in London, England. Her parents worked long hours for little income. When she was seven years old, she was evacuated from London, along with thousands of other children, to live with strangers. From her humble beginning, Katz never expected to have a career of any kind, much less one as successful as hers has been.

After marrying in 1952, she continued her college education until her first child was born. Devoting herself to motherhood, she didn't return to college until ten years later. In 1964, she graduated with honors from San Francisco State College, then went on to receive her Ph.D. in child development.

Since then, Katz has held a number of positions in early childhood education. Currently, she is a Professor Emerita and Codirector of the ERIC (Educational Resources Information Center) Clearinghouse in Elementary and Early Childhood Education at the University of Illinois, Urbana-Champaign.

While Katz has contributed a great deal to early childhood education, she is best known for her role in promoting the Project Approach of education. The Project Approach involves groups of children conducting in-depth investigations of real world topics. Younger children tend to learn through play. For them, the Project Approach is considered the more formal aspect

of their schooling. The teacher takes an active role in introducing students to education topics. On the other hand, the Project Approach serves as the more informal aspect of schooling for older children. Older children enjoy freedom in examining topics on their own with less direction from their teachers.

Projects are usually developed in a series of three phases.

- 1. Beginning the project**—During the first phase, teachers discuss topics with children to determine what their life experiences have already taught them about the topic. Thereafter, teachers help students develop questions to answer through in-depth investigation. For example, if a classmate comes to school with a broken bone set in a cast, the class may consider hospitals, bones, or medicine as a topic. During this first phase, the teacher may ask students to share their own hospital or medical experiences. The teacher may also ask students to think about how their bones are structured inside their own bodies. Through drawing and talking, each classmate is certain to reveal a slightly different understanding of the skeletal system.
- 2. Developing the project**—During the second phase, teachers introduce students to books, pictures, models, etc. that may help students gain a better understanding of their topic. Students also have an opportunity to talk with experts and ask questions about their topic. In the hospital project, students may examine a model of the human skeletal system to determine how bones fit together and move. They may also take a field trip to a hospital and talk with doctors about X-rays, medications, surgery, and casts. A doctor may even place a cast on a student volunteer, then use cast-cutting tools to remove it.

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3. Concluding the project—During the final phase, teachers arrange closing events so students can share what they have learned. Teachers help students understand the highlights of their project, then select pictures, stories, and other materials to share. Students who visited the hospital may present their knowledge to another class, school faculty members, or their own parents.

In doing so, they may show X-rays, cast pieces, and pictures from their field trip.

Through projects, students are better able to identify with subjects and topics. While reading and lecturing are also valuable teaching tools, the Project Approach helps students retain more valuable information because they have experienced the topic first hand.

CAREER FACTS**Postsecondary Education Teacher (Professor)**

Education professors teach college courses related to education, including counseling, guidance, instruction, teacher education, and more. As educational instructors, professors use interactive discussions and hands-on situations to help students learn. In addition to teaching, professors like Lilian Katz also conduct research.

Key Skills: As with many other occupations, it is important to enjoy being around and communicating with people to consider a career in education. Professors are generally very organized individuals. They are skilled at problem solving, conflict resolution, and record keeping.

Average Salary: \$62,160 nationally with experience.

Education/Training: Most colleges and universities require professors to hold Ph.D. degrees. Doctoral degree holders are usually considered for full-time, long-term positions; however, master degree holders may be considered for part-time or temporary positions. Candidates that do not hold doctoral degrees may also be considered for assistant professor or instructor positions.

Employment Opportunities/Outlook: The number of available postsecondary teaching positions is expected to grow 15 percent through 2018.

Follow-Up!

Consider the Project Approach to learning. Write a report on why you agree or disagree that the Project Approach is helpful in schooling.

Abraham Maslow

Name: Abraham Maslow
Life Statistics: April 1, 1908 (Brooklyn, NY)—June 8, 1970 (CA)
Title: Psychologist
Education: Attended City College of New York and Cornell University; B.A., M.A., and Ph.D. in psychology, University of Wisconsin, 1930, 1931, 1934, respectively

As the first-born child of uneducated Jewish immigrants from Russia, Abraham Maslow was strongly encouraged to achieve academic success. To please his parents, Maslow first studied law at the City College of New York (CCNY). After three semesters, he transferred to Cornell, then returned to CCNY, but did not receive a degree.

Against the wishes of his parents, Maslow married his first cousin, Bertha Goodman. Shortly thereafter the couple moved to Wisconsin so he could attend the University of Wisconsin. While at the U of W, Maslow became interested in psychology. One year after receiving his Ph.D. in psychology, he returned to NY and began teaching at Brooklyn College.

From 1951 to 1961, Maslow served as the psychology department chairperson at Brandeis University—a research university in Waltham, MA. During this time, he created the theory of self-actualization that made him famous in the world of psychology. According to Maslow, humans operate under a hierarchy of needs or motivations.

- **Physiological Needs.** These needs include breathing, eating, drinking, removing waste from the body, keeping body temperature at safe levels, sleeping, etc. These needs come before all others in the hierarchy, but are also ranked within their category. For example, if you are very thirsty, but you suddenly start choking, your focus is going to switch from drinking to breathing. Physiological needs are so vital that they require no thought. For instance, if your body is not getting enough iron, you will start to crave iron-rich foods.
- **Safety and Security Needs.** Secondary to physiological needs, these needs include finding a safe place to live, a secure job, and a full bank account. People that have problems in this phase are not concerned with things like thirst and hunger, but become aware of their fears and anxieties.
- **Love and Belonging Needs.** Once physiological and safety/security needs are met, people begin to feel the need for companionship, affection, and a sense of belonging. People in this level may want to find a mate, join a golf league, have a family, join a church, etc. When these needs are not met, people may become lonely or experience social anxieties/phobias.
- **Esteem Needs.** Maslow identified two levels of esteem needs. Once all preceding needs are met, people begin searching for the respect of others through recognition, attention, appreciation, etc. They also search for self-respect through confidence, achievement, independence, etc. If the needs are not met, people may suffer from low self-esteem and inferiority complexes. Maslow believed that many of the physiological problems that humans suffer from exist because esteem needs are not met. In our country, most people meet their needs in all the preceding levels, but may fall short in this level.
- **Self-Actualization.** Maslow referred to all previous levels as deficit needs or D-needs. If you have a need in those levels, you feel the need. However, this final level involves being needs or B-needs. These needs feed upon themselves. In other words, once you begin self-actualizing, you are not likely to stop. This level includes a continuous desire to be the best you can be. While many people feel they

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Career Profile

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are perfectionists and are continually trying to outdo themselves, Maslow believed that only a small percentage of people actually get to this level. In order to get to this level, all of the preceding needs must be met. Because most people do not have all of their needs met, many never get to self-actualization.

Those who do get to this point may still fall victim to problems—especially when

their self-actualizing needs are not met. They can become depressed, disgusted, cynical, and more.

Regardless of the level at which people live, they may still return to a lower level from time to time. For instance, if an apartment building burns down, the residents will undoubtedly regress to the safety and security level until they find a safe place to live.

CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. A psychologist may conduct research on the human mind, educate others, or practice clinical psychology through counseling.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. To ensure happy working conditions, you will need the ability to get along well with others.

Average Salary: \$72,310 nationally with experience.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of available psychologist positions is expected to grow by 12 percent through 2018.

Follow-Up!

Consider your own life and Abraham Maslow's theory. Which level of the hierarchy represents your life today? Which level do you predict will represent your life in 5 years? 10 years? How might your level in the hierarchy influence your career choices? Explain your responses to each question.

Dr. Bruce Perry

Career Profile
15**Name:** Dr. Bruce Perry**Life Statistics:** May 6, 1955 (Bismarck, ND)—
Current**Title:** Child Psychiatrist**Education:** Undergraduate, Stanford University (1973-1975); Amherst College (1975-1977); M.D. & Ph.D., at Northwestern University (1984)

When a visiting scientist explained his research to a Stanford University class, Bruce Perry, a freshman at the time, got a taste of what his own future may hold. The scientist explained that he raised two sets of rats. One set of rats was handled by humans within 30 seconds of birth. The other set was not handled. When the rats were dissected, the scientist discovered differences in their brains. Perry recalls thinking, "Wait a minute. A 30-second experience changed the brain function?" Similar research has become the basis of his career.

Through his neuroscience and clinical research, Perry determined that environment has great impact on human brain growth. That is especially true during the first three years of life. According to Perry, all experiences alter the way our brain develops. However, in early childhood, our brains are literally being shaped by our experiences.

His research demonstrates how prenatal exposure to drugs, childhood neglect, and childhood traumas have grave effects on brain

development. Through his clinical research, which focuses on high-risk children, he examines the long-term effects of neglect and trauma on behavioral, emotional, social, and physiological growth.

In his quest to educate people on the importance of positive environments in relation to healthy brain development among children, Perry currently holds the following positions:

1. Senior Fellow of the ChildTrauma Academy in Houston, TX—a not-for-profit organization that promotes service, research, and education in child maltreatment.
2. Medical director for Provincial Programs in Children's Mental Health for the Alberta Mental Health Board in Alberta, Canada.
3. Adjunct Professor of Psychiatry and Behavioral Sciences at Northwestern University in Chicago.
4. Consultant to the Alberta Ministry of Children's Services in Canada.

In addition to these positions, Perry also writes many articles each year, speaks to groups throughout America, lobbies to policy-makers, and forms partnerships with child protective organizations. He strives to inform and educate people on the importance of stable environments for children. He also hopes to prompt positive reform among child protective services, mental health facilities, public schools, and juvenile justice centers.

CAREER FACTS

Child and Adolescent Psychiatrist

Child and adolescent psychiatrists are physicians who specialize in evaluating, diagnosing, and treating children with psychiatric disorders. They are trained and qualified to treat adults, but typically specialize in the psychological treatment of infants, children, and adolescents.

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*Continued***CAREER FACTS CONTINUED**

Key Skills: A love of children and a desire to promote emotional and physical health are vital keys to becoming a child and adolescent psychiatrist. Good communication skills are also very important. Child and adolescent psychiatrists need to be able to talk with the children they are treating as well as the adults who care for those children. Like all doctors, child and adolescent psychiatrists must also possess quick decision-making skills, good bedside manner, emotional stability, and self-motivation.

Average Salary: The average annual salary for all doctors, including child and adult psychiatrists, is \$173,860 with experience.

Education/Training: After graduating from college, future child and adolescent psychiatrists must complete:

- Four years of medical school.
- One year of supervised general medical practice in an approved hospital residency program.
- Two to three years of supervised training in general psychiatry.
- Two years of supervised training working with children, adolescents, and their families in an approved child and adolescent psychiatric residency.

Thereafter, the doctor is eligible to take a test to become certified in general psychiatry by the American Board of Psychiatry and Neurology. After passing the general psychiatry exam, the psychiatrist is eligible to take a test to become board certified in child and adolescent psychiatry.

Employment Opportunities/Outlook: The number of positions available for physicians (including child and adolescent psychiatrists) is expected to grow by 22 percent through 2018.

Follow-Up!

Reflect upon Dr. Bruce Perry's brain development research. Create a list of ways parents, teachers, and other people may promote positive development among children. For instance, babysitters may read fairytales to the children they're watching.

Jean Piaget

Name: Jean Piaget

Life Statistics: August 9, 1896 (Neuchatel, Switzerland)—September 16, 1980 (Geneva, Switzerland)

Title: Child Psychologist

Education: Ph.D. in Natural Sciences, University of Neuchatel, 1918

After receiving his Ph.D., Jean Piaget spent a semester at the University of Zurich, and was introduced to the world of psychoanalysis through the works of Sigmund Freud and other psychoanalysts. Following his new interest, he left Switzerland to spend a year working in France at Alfred Binet's Grange-Aux-Belles Street School for Boys, which was directed by Théodore Simon. Together, Binet and Simon developed a test for the measurement of intelligence.

Although Piaget respected the *Simon-Binet IQ test*, he was disappointed that it focused only on the number of questions students answered correctly. In turn, he began focusing on the types of answers students gave in response to the test's questions. He noted that the students who were giving incorrect answers frequently were reasoning in similar ways. This discovery guided him toward developing his famous theory—the four stages of mental growth in children.

1. Sensorimotor stage occurs from birth to age two. During this stage, children use senses, reflexes, and motor skills to understand their surroundings. Children in this stage may pull the chord on a musical toy to discover it

makes noise. After one pull, children will likely pull it again and again to assure themselves that they can duplicate the noise.

2. Preoperational stage occurs from ages two to seven. At these ages, children become skilled at talking and using symbols. They also tend to be very self-absorbed. They assume others see the world from their point of view. For instance, they may look at a picture in a book and assume you can see the picture even if you are sitting across from them. They also have trouble understanding quantities and volume. If a child is given a choice between a tall, thin glass of juice or a short, wide glass of juice, the child is likely to choose the tall glass because he or she believes it contains more juice.

3. Concrete operational stage occurs from ages seven to 12. Children in this stage learn to problem solve. They gain an understanding of numbers, size, quantities, and volume. Children in this stage will understand the short, wide glass of juice contains the same amount as the tall, thin glass.

4. Formal operational stage occurs from ages 12 to 15. During this stage, children are likely to develop adult-style thinking and are able to solve problems logically. They will likely answer the following correctly. If an orange is heavier than an apple, and an apple is heavier than a banana, which is the heaviest? Questions like these may take a moment to consider, but unlike children in prior stages, the formal operational child is likely to figure it out.

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Career Profile
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CAREER FACTS

Child Psychologist

Child psychologists may choose careers in research or clinical counseling.

Key Skills: To consider a career in child psychology it is very important to enjoy being around children. Emotional stability, patience, and an ability to stick with one issue or patient long-term are vital. You will also need good communication skills in order to explain your thoughts to both children and the adults in their lives. Likewise, you will need to get along well with others to ensure happy working conditions among you and your staff.

Average Approximate Salary: \$70, 490 nationally with experience.

Education/Training: Unlike psychiatrists, psychologists cannot prescribe medications; however, to become a licensed clinical or counseling psychologist, you will still need a doctoral degree. Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers.

Employment Opportunities/Outlook: The number of positions available in child psychology fields is expected to grow 12 percent through 2018.

Follow-Up!

Write an essay on why you think you would or would not be suited for a job in child psychology.

Dr. Benjamin Spock

Name: Dr. Benjamin Spock

Life Statistics: May 2, 1903 (New Haven, CT)—March 15, 1988 (San Diego, CA)

Title: Pediatrician

Education: Attended Phillips Academy; B.A. in English, Yale University, 1925; Attended Yale Medical School, 1925-1927; M.D., Columbia University's College of Physicians and Surgeons, 1929

As the oldest of six children, Benjamin Spock was introduced to child care at an early age. He frequently babysat, fed, and diapered his siblings. His father was a lawyer, and his mother was a devoted homemaker. Both parents were strict and had high expectations for their children. Their oldest did not disappoint them.

He attended Phillips Academy, then transferred to Yale to major in English and minor in history. Aside from doing well academically, Spock also excelled in athletics. After attending Yale School of Medicine for two years, he transferred to Columbia University's College of Physicians and Surgeons in New York. In 1929, he graduated first in his class.

Spock specialized in pediatrics, but soon realized he needed a greater understanding of child and parent psychological needs in order to better serve his patients. He studied psychoanalysis for six years at the New York Psycho-analytic Institute.

His patients and their parents loved him, but Spock's world appeal began in 1946 when he authored "The Common Sense Book of Baby and Child Care." He delivered his suggestions and advice in a friendly, reassuring tone, unlike the many strict, authoritative

doctors of the era. He abandoned the mainstream doctoral and child care opinions of the time, and encouraged parents to be flexible with their children's care.

He suggested parents could stray from feeding schedules, and feed children when they were hungry. He insisted that reacting to crying infants by picking them up would not spoil the children. While he cautioned parents not to overreact to every whimper, he explained that cuddling babies and showing affection toward children would make them feel more secure. He also suggested parents could have fun raising children. He recommended techniques that could help mothers and fathers enjoy parenting while still meeting their own needs.

Spock's book was and is an overwhelming success. The book, which in 1992 took the title "Dr. Spock's Baby and Child Care," is now in its eighth edition. Spock's book has sold more than 50 million copies, and has been printed in 39 different languages.

If he had stopped at authoring the book, his contribution to the world would have been outstanding. However, Spock continued to impress the world with his actions. He went on to teach child development, author and coauthor 13 additional books, write numerous magazine columns, and more.

Spock also actively demonstrated his national and global political views. He was arrested more than a dozen times for participating in anti-nuclear demonstrations, speaking out against the Vietnam War, demonstrating against test launching of missiles, and more.

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Career Profile

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Spock's life spanned from the introduction of the automobile to the unveiling of the Internet. Throughout his life and career, he took great pride in keeping up with the times. By following timely social issues, such as working mothers, professional day-care, and single parenting, Spock was able

to incorporate up-to-date parenting advice as well as information on the latest medical breakthroughs into the revised editions of his famous "Baby and Child Care" book.

Benjamin Spock died two months before his 95th birthday.

CAREER FACTS

Pediatrician

Benjamin Spock is most famous for authoring "Baby and Child Care." However, it was his career as a pediatrician that granted him the knowledge, experience, and authority to write the popular book. A pediatrician is a doctor who specializes in the care of children from infancy through adolescence.

Key Skills: A love of children and a desire to practice medicine are vital keys to becoming a pediatrician. Good communication skills are also very important. Pediatricians need to be able to talk with the children they are treating as well as the adults who care for those children. Like all doctors, pediatricians must be willing to study throughout their career in order to stay updated on new medical advances and technology. These doctors must also possess quick decision-making skills, good bedside manner, emotional stability, and self-motivation.

Average Salary: \$161,410 nationally with experience.

Education/Training: After graduating from college, future pediatricians must attend four years of medical school, and participate in a residency/internship program that could last from three to eight years.

Employment Opportunities/Outlook: The number of positions available for physicians (including pediatricians) is expected to grow by 22 percent through 2018.

Follow-Up!

Write an essay on why you believe Dr. Benjamin Spock's approach to child care was both courageous and accurate.

Lev Vygotsky

Career Profile
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Name: Lev Vygotsky

Life Statistics: November 5, 1896 (Western Russia)—June 11, 1934 (Russia)

Title: Psychologist (No formal training)

Education: Law degree, Moscow University

Lev Vygotsky started college as a medical major, but soon switched to law. However, after graduation, he found his true love was psychology. Although he had no formal training in psychology, his sociocultural theory on human development became highly respected in the psychology field.

According to Vygotsky, human intelligence does not simply exist. It is developed through a process—specifically through interacting with others. Unlike any other species, humans live among cultures or societies. Cultures vary greatly from home to home, town to town, country to country, and so on. Interaction with people from similar and differing cultures enables us to develop and learn.

His theory revolves around what he called the **zone of proximal development (ZPD)**.

ZPD is “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.” In other words, ZPD represents the difference between what people can complete on their own and what they can complete through interaction with more capable individuals.

Vygotsky believed that ZPD must include two features in order to work. First, there must be subjectivity. Two or more people begin a task with different points of view and levels of understanding. Through interaction and discussion, they arrive at the same conclusion and level of understanding.

Second, there must be scaffolding or adult assistance. Scaffolding refers to the concept of teachers adjusting the amount of help they provide to a student based on that student’s level of performance. If provided with the right amount of scaffolding, every student is capable of developing well.

CAREER FACTS

Psychologist

Psychologists may choose a variety of paths. A psychologist may conduct research on the human mind, educate others, or practice clinical psychology through counseling.

Key Skills: To consider a career in psychology it is very important to enjoy being around and communicating with people. Emotional stability, patience, and an ability to stick with one issue and/or patient long-term are vital. To ensure happy working conditions, you’ll need the ability to get along well with others.

Average Salary: \$72,310 nationally with experience.

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Career Profile
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CAREER FACTS CONTINUED

Education/Training: At the time Lev Vygotsky was conducting research and creating his theory, individuals could pursue careers as psychologists by doing extensive research and self-education. In today's world, formal education is mandatory for careers in this field. In fact, psychology positions for those holding only a bachelor's degree are very limited.

Psychologists with Ph.D. degrees often land jobs in schools, universities, private companies, and government. Psychologists with doctorates in psychology often build clinical counseling careers. While technically doctors, licensed psychologists, unlike psychiatrists, cannot prescribe medications to the clients they counsel.

Employment Opportunities/Outlook: The number of available psychologist positions is expected to grow 12 percent through 2018.

Follow-Up!

Write a report on why you agree or disagree with Lev Vygotsky's theory that development is based primarily on interaction with others.

Cafeteria Cook

Cafeteria cooks prepare meals for patrons or residents of the facilities in which they work. They may cook for young school children, older adults in retirement homes, hospital patients of all ages, prisoners in correctional facilities, or employees of corporations.

For each meal, cafeteria cooks are responsible for preparing large quantities of one or a few main courses, vegetables, and desserts. They mix, measure, and prepare ingredients according to recipes. They use a variety of kitchen equipment, including pots, pans, knives, ovens, ranges, broilers, grills, slicers, grinders, blenders, etc.

Depending upon the facility, they may be assigned to one specific job. For example, there are fry cooks, vegetable cooks, and

sauce cooks. Head cooks may be responsible for directing other kitchen employees, estimating food quantity needs, and ordering supplies. They may plan meals, prepare menus, and determine serving sizes.

Cafeteria cooks are also responsible for ensuring food safety. In most states, cafeteria workers must obtain health certificates showing they are free of communicable diseases. Additionally, they must maintain their kitchens according to state health department regulations. Health department officials routinely visit cafeterias to make sure food is being stored properly, dishes and containers are sanitized correctly, employees wash their hands frequently or wear appropriate sanitary gear, and more.

CAREER FACTS

Key Skills: To prepare meals for a large number of people, cafeteria cooks must possess a number of skills and abilities.

- **Physical fitness.** Cafeteria cooks must be able to stand for long periods of time. They also must frequently lift bulk ingredients, heavy pots, and more.
- **Team attitude.** Cafeteria cooks do not work alone. They must be able to work well with others and enjoy teamwork.
- **Sense of taste and smell.** To ensure meals are safe and tasty, cafeteria cooks must have sharp senses.
- **Attention to detail.** In order to consistently prepare food, cafeteria cooks must be able to follow recipe directions well. They must be able to make accurate measurements, monitor oven temperatures, etc.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, cafeteria cooks earn an annual average of \$23,870 nationally.

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Career Profile
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CAREER FACTS CONTINUED

Education/Training: Many cafeteria cooks learn their trade through experience. They may start out as kitchen workers, advance to assistant cooks, and eventually become head cafeteria cooks.

Although high school diplomas are not required, they are recommended for those wishing to pursue careers in cooking. Many school districts work with their state departments of education to offer on-the-job training and workshops for cafeteria workers who want to become cooks.

Following high school, future cooks may also consider training through vocational schools, U.S. Armed Forces, community colleges, four-year universities, or culinary schools. Currently, the American Culinary Federation awards 14 levels of certification and accredits training programs in schools throughout the United States. The federation also offers many apprentice programs that typically include three years of combined classroom and work experience.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for cafeteria cooks is expected to grow by 6 percent through 2018.

Follow-Up!

Investigate the health and safety requirements for foodservice workers in your state. Are there special requirements for those who prepare food for children?

Child Life Specialist



Medical procedures can be emotionally upsetting for children and their families. Child life specialists use play and other forms of communication to minimize the anxiety and emotional turmoil associated with medical experiences and other challenging experiences.

Child life specialists realize that the degree of anxiety is not necessarily relative to the seriousness of the child's illness nor to the length of the facility visit. A child visiting a hospital for a broken leg is not able to reason that his

experience may not be as traumatic as a return hospital visit for a long-term leukemia patient.

Child life specialists typically work in hospital settings, but may also be employed in other health-related settings, such as rehabilitation centers and hospice associations. They may also help children and families deal with stressful situations outside the health arena. They may counsel children after the death of a loved one. They may also help victims cope with severe or fatal violence.

CAREER FACTS

Key Skills: Child care professionals, including child life specialists, need a variety of skills in order to be effective and successful.

- **Compassion.** In order to help children and families cope with their anxieties and fears, child life specialists must be understanding and respectful.
- **Communication.** Child life specialists must be able to interact on appropriate levels with children, family members, medical professionals, and others.
- **Organization.** In documenting progress, filing patient records, applying appropriate treatment techniques, and more, child life specialists must remain organized.
- **Patience.** Anxious or frightened individuals may not be open to treatment suggestions. To minimize frustration among their clients and themselves, child life specialists must remain calm.
- **Creativity.** In order to apply specific coping strategies to different individuals, child life specialists must be imaginative.
- **Perceptiveness.** Anxious and fearful individuals often try to hide their upset. Child life specialists must be able to observe and treat subtle signs of distress.

Average Salary: According to a 2008 survey conducted by the Child Life Council, child life professionals, including child life specialists, earn an annual average of \$63,417 nationally. As with most occupations, earnings vary by region, position, years of experience, education level, certification status, etc.

Education/Training: The Child Life Council is the international organization that serves child life professionals. The council also provides certification for child life specialists. In order to obtain the Certified Child Life Specialist (CCLS) credential, individuals must:

- Hold at least a bachelor's degree (or be in the final semester of study toward a bachelor's degree).
- Complete a minimum of 10 courses related to child and family life.
- Participate in at least 480 hours of child life clinical experience under the direction of a certified life specialist.

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CAREER FACTS CONTINUED

Once these criteria are met, individuals must pass the Child Life Professional Certification Examination. Child life specialists can become re-certified in five years by taking the exam or accumulating 50 professional development hours. Once every 10 years, certified child life specialists must pass the certification exam.

Although a child life specialist may be educated in a number of fields, including education, recreation, child development, etc., many colleges now offer curriculum specific to future child life professionals. These programs may include courses such as child growth and development, children under stress, child psychology, children in the hospital, family dynamics, theories of play, therapeutic activities for children, and more.

Those who continue their education may take graduate-school courses in administration and research to prepare them for supervisory or senior clinical positions.

Employment Opportunities/Outlook: According to the Child Life Council, child life specialist positions are becoming a standard in most pediatric hospital settings. Child life specialist positions in other environments, including outpatient healthcare facilities, doctors' offices, camps, and schools, are increasing.

Follow-Up!

Investigate the need for child life specialists in your community. If possible, interview a child life specialist.

Child Social Worker



Child social workers dedicate themselves to helping children in unsettling home and public situations. Some work in private practice, but most social workers work in hospitals, mental health centers, community centers, correctional facilities, courts, and schools.

Child social workers typically work standard 40-hour weeks, but may schedule special appointments, attend meetings, and deal with emergencies during evenings and weekends. Social workers may choose a variety of career paths. Those who focus on child social work are likely to enter one of three fields.

- **Child welfare or family services social workers** help children who have difficulty fitting in with others, children who are diseased or disabled, and children who are abused or neglected. Aside from counseling children, child social workers also work with families, teachers, and others who have influence

over affected children. Some child welfare social workers also counsel parents, assist with adoptions, and help find foster homes for children who are abused, neglected, or abandoned.

- **Child or adult protective services social workers** focus on child abuse, neglect, and abandonment cases. They investigate reports of abuse, and take legal steps to remove children from unfit homes when necessary. They locate emergency shelters and foster homes to care for children of abuse.
- **School social workers** work in schools to observe and diagnose student problems. When dealing with problems, such as student pregnancy, misbehavior, unnecessary absences, and other problems, school social workers counsel students and arrange special services as needed. They also help teachers develop coping skills for dealing with troubled students.

CAREER FACTS

Key Skills: Judging from the title, it is safe to say that social workers need a variety of *social* skills. They need to be able to communicate with clients, their families, their teachers, and authorities when necessary. They need good listening skills to understand, assess, and solve client problems. Effective social skills are crucial; however, social workers also need many other skills. They must:

- **Respect confidentiality.** Like medical professionals, social workers need to keep the information their clients share strictly confidential. However, if social workers determine that anyone's health or safety is in danger, they may share information with appropriate authorities.
- **Handle pressure.** The basis of social work revolves around problem solving. Social workers are often faced with multiple cases and multiple problems each day. It is important to stay focused and deal with each problem calmly and carefully.
- **Remain objective.** There are two sides to every story. Social workers need to look at both sides before jumping to conclusions and solving problems based on one-sided information.
- **Stay organized.** When dealing with multiple cases, social workers accumulate many notes and files. They must keep this valuable information secure and orderly for easy and quick access.

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CAREER FACTS CONTINUED

Average Salary: Child, family, and school social workers earn an average of \$43,540 per year with experience.

Education/Training: Most positions in social work require at least a bachelor's degree in social work (B.S.W.). Some entry-level jobs may be available for majors in psychology, sociology, and related fields. However, advanced degrees have become standard for many positions in social work.

Individuals seeking positions in health or mental health settings will need a master's degree in social work (M.S.W.). A M.S.W. is usually required for clinical work certification as well. Supervisory, administrative, and staff training positions also require advanced degrees. Research positions as well as college-level teaching jobs require doctorates in social work (D.S.W. or Ph.D.).

Additional credentials may be important for social workers entering private practice or other specialized settings. Depending upon differing criteria and areas of expertise, credentials are available through the National Association of Social Workers (NASW) and the Academy of Certified Social Workers (ACSW). Social workers may also qualify for the school social work specialist (SSWS), qualified clinical social worker (QCSW), or the advanced diplomate in clinic social work (DCSW) credentials.

All social workers must meet licensing, certification, and registration requirements imposed by the state in which they work.

Employment Opportunities/Outlook: The number of positions available for social workers is expected to increase 16 percent through 2018.

Follow-Up!

Interview a child social worker in your community. What aspects of his or her career does the social worker feel are most important? What are the most difficult aspects of this career?

Children's Book Author



Children's book authors write text that is designed to educate or entertain young readers.

The children's book market is very competitive for authors. Most children's book authors pursue other careers and write children's text for supplemental income only. They write because they enjoy working with words and telling stories. Making children laugh and helping them learn are the true riches a children's book author hopes to reap.

They may work with illustrators to put pictures with their words before submitting their stories to one or multiple book publishers. Many children's book authors use agents to help them distribute and market their stories to publishers.

In order to improve their chances of success, hopeful children's book authors should:

- Read children's books frequently to gain an understanding of writing for children.
- Find a favorite children's book author and study his or her work intently. This will help the aspiring author learn how to thicken plots and gain reader interest.
- Read articles, trade journals, and books about writing for children.
- Write constantly. Writing is like anything else. Practice is important.
- Join a writer's club. By networking with other authors, children's book authors learn how to create and sell text.

CAREER FACTS

Key Skills: To pursue a career in children's book writing, future authors must:

- **Write.** They must enjoy writing, and they must write well.
- **Create.** In order to capture and keep the interest of children, a children's book author must be imaginative.
- **Sell.** Their stories may be fabulous, but children's book authors must convince publishers and/or agents of that.
- **Understand.** In order to write successful children's books, authors must be able to relate to their audience. Enjoying time spent with children is key.

Average Salary: According to the Society of Children's Book Writers & Illustrators, if a 32-page picture book is accepted and published, a children's book author may expect to split a \$8,000-\$12,000 advanced payment with his or her illustrator. Advance fees are based on receiving a royalty of 3.5 to 6 percent on the sale of each book. If the book sells copies beyond the advance payment amount, the author and illustrator will receive royalties on each book sold.

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CAREER FACTS CONTINUED

Education/Training: No specific education or training is needed to become a children's book author. However, many children's book authors also pursue other careers. The following are just a few of the careers that may inspire children's book authors.

- Special Education Teacher
- Early Childhood Teacher
- Montessori Teacher
- Teacher Assistant
- Child Social Worker
- Children's Librarian

Employment Opportunities/Outlook: Children's book authors face steep competition. However, persistence often pays off. There will always be a market for creative, educational books for children.

Follow-Up!

Write a children's story for preschool children based on your personal experience. Have your instructor (and possibly your English teacher) read your story. How can your story be improved for preschoolers? What illustrations might enhance the story?

Children's Librarian

Career Profile
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The number one priority of children's librarians is teaching children about the joys of reading and the rewards of learning. To generate interest in what libraries have to offer, children's librarians tell stories, develop puppet shows, show movies, and more. They also teach children and adults how to use the library. They instruct people on how to gather information from books, the Internet, and other sources.

Children's librarians identify with their communities and strive to provide services that will appeal to parents, caregivers, and children from all cultural and ethnic backgrounds. They have an understanding of infant, child, and adolescent development and are able to recognize and/or assist with special needs. They can recommend materials to parents or children dealing with bedwetting, potty training, puberty, attention deficit disorders, and many other

sensitive subjects. By maintaining communication and familiarity with area resources, children's librarians can also recommend agencies, institutions, and organizations that can assist children and families with special needs.

They work with other staff members to create an environment that is comfortable, convenient, and easy for visitors to use. To ensure their facility offers a wide variety of books, magazines, and audiovisual materials, children's librarians maintain a knowledge of classic publications, while staying up to date on new releases and electronic databases.

Many children's librarians also develop and maintain budgets for their department or facility. They often interview, train, and manage other library staff members. They also research sources of financial funding and complete grant applications as needed.

CAREER FACTS

Key Skills: As you can see, children's librarians have many responsibilities. In managing these duties, they must possess a variety of skills:

- **Love for children.** While children's librarians also assist adults with child issues, the majority of their day is spent talking with and helping children. They must enjoy being around children.
- **Communication skills.** Children's librarians must be able to effectively speak with and listen to a wide variety of people: children, parents, caregivers, staff members, and more.
- **Management abilities.** To ensure the department or facility runs smoothly, children's librarians are often required to oversee other staff members, budget effectively, solve problems, and make decisions.
- **Knowledge of materials.** To stock and recommend literature that is valuable to children, parents, caregivers, teachers, and others, children's librarians must be familiar with materials, authors, publishers, etc.
- **Creativity.** Children's librarians need creativity in many areas of their job. They need to be creative in displaying materials, telling stories, developing programs, and more.
- **Public relations skills.** In order to promote the value of their facility and programs, children's librarians must work with other agencies in the community and create awareness through media when possible.
- **Technical abilities.** Children's librarians must be able to use technology as well as teach library visitors how to use computers for information gathering.

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Career Profile
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CAREER FACTS CONTINUED

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, librarians, including children's librarians, earn an average of \$55,670 per year with experience.

Education/Training: While many libraries employ library assistants with a high school diploma or associate degree, children's librarians in most public, academic, or special libraries must hold a master's degree in library science (MLS), preferably from an American Library Association (ALA) accredited program. These programs take one to two years to complete. Programs may include coursework on:

- Foundations of library and information science.
- Material section.
- Library organization.
- Technology for information resources.
- On-line reference systems.
- Library automation.
- Classification, indexing, and cataloguing.
- Resources for children and young adults.

After becoming a children's librarian, individuals must also stay up-to-date with library issues and technology through on-going training. School librarians may not need an MLS but must meet state teaching or certification requirements.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for librarians, including children's librarians, is expected to increase 8 percent through 2018.

Follow-Up!

Interview a children's librarian at your public library or at a local elementary school. What aspects of his or her career does the librarian feel are most important to the education of young children? What aspects of his or her career are most challenging, either positively or negatively?

Dietitian

Dietitians plan food and nutrition programs, and supervise the preparation and serving of meals. By promoting healthful eating habits and suggesting dietary changes, dietitians help prevent and treat illnesses in older adults, children, and people of all ages. They may suggest a low-salt diet to control high blood pressure, a low-fat diet to lower cholesterol, or a low-calorie diet to shed pounds.

Dietitians are employed in four areas of practice.

- 1. Clinical dietitians** work in hospitals, older-adult care facilities, and other institutions. Working with doctors and other health professionals, dietitians coordinate medical and nutritional needs. After assessing needs, they create nutritional plans, and evaluate results. Clinical dietitians may specialize in overweight, kidney, diabetic, or critically ill patients.
- 2. Community dietitians** work in public health clinics, home health agencies, and health maintenance organizations to instruct individuals and their families on healthful eating to prevent disease and maintain good health. Those working in home health agencies may

instruct their patients' family and friends on grocery shopping and food preparation for older adults, children, and people with special needs.

- 3. Management dietitians** work in hospitals, schools, prisons, and company cafeterias. They hire, train, and manage other dietitians and foodservice workers. In supervising large-scale meal planning and preparation, management dietitians budget and place orders for food and supplies, make sure safety and sanitary regulations are met, maintain records, and prepare reports.
- 4. Consultant dietitians** often own their own practice. They work under contract to conduct nutrition screenings and talk with clients about dietary concerns such as managing high cholesterol or diabetes. Consultant dietitians may work for sports teams, supermarkets, health clubs, or other health and wellness businesses. Aside from counseling clients on dietary changes, they may assist food service personnel in planning menus, assessing facility sanitation, meeting safety regulations, budgeting, and more.

CAREER FACTS

Key Skills: Dietitians are involved in detecting and managing health problems in people of all ages. They need to have knowledge of growth and development, as well as experience in nutrient biochemistry and metabolism. Having these skills still doesn't guarantee a person a successful career in dietetics. As with any field of study, it is important to respect and respond to the people you serve.

Average Salary: Dietitians earn an average of \$53,230 per year with experience.

Education/Training: Doing well in high school courses such as biology, chemistry, mathematics, health, and communications will help aspiring dietitians prepare for college. Once in college, these students will take other courses, including biochemistry, microbiology, and physiology. Future dietitians also take courses such as business, statistics, computer science, economics, and psychology as they work toward bachelor's degrees in dietetics, foods and nutrition, foodservice systems management, or related fields.

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Career Profile
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CAREER FACTS CONTINUED

After receiving their bachelor's degrees, most dietitians go on to participate in internships or supervised practice experience of some kind. Practice requirements vary by state. Also, depending upon the state in which they hope to practice, most dietitians seek licenses, certification, or registration. Thirty-three states require dietitians to be licensed, 12 require certification, and one requires registration.

In order to become a registered dietitian, the Commission on Dietetic Registration of the American Dietetic Association requires applicants to pass a certification exam after completing college and a supervised internship.

Employment Opportunities/Outlook: The number of positions available for dietitians is expected to grow by 9 percent through 2018.

Follow-Up!

Investigate the specific requirements for certification as a registered dietitian through the American Dietetic Association.

Early Childhood Teacher

Career Profile
25

Early childhood teachers, including pre-school, kindergarten, and elementary school teachers, play vital roles in child development. Along with friends and family, teachers are responsible for preparing young people for the workforce and life on their own. Their influence may determine a child's success or failure in later years of school, work, and life.

In most American schools, early childhood teachers are responsible for teaching multiple subjects to the same class. However, some elementary and middle schools employ teachers to teach a single subject, like mathematics, music, social studies, etc., to multiple classes. In other words, following each period, students change rooms to attend class on another subject.

Careers in education certainly have their advantages. While some American schools stay in session year round, many still enjoy lengthy winter, spring, and summer breaks. Teachers in those schools often have a choice in how they spend their breaks. While most enjoy the same breaks as their students, many choose to tutor students, teach summer sessions, or work a temporary job in another field.

As you know, teaching is not all about multiple vacations. School days are relatively short for most students; however, teachers

usually begin their days early in the morning and continue working after the school day is finished. Preparing lesson plans, grading papers, attending meetings, etc., all contribute to work weeks that exceed 40 hours. Aside from long days, teachers may also find themselves faced with frustrating situations. They may have to deal with disrespectful students, rude behavior, and even violence.

For those students who are less enthusiastic about the joy of learning, teachers may use games, music, cameras, puzzles, computers, and other interactive materials to promote interest and help students improve skills. Hands-on learning can also help children apply concepts to problem solving in subjects, including science and mathematics.

Computers play a vital role in today's classroom. A vast assortment of educational software teaches computer skills, but also introduces students to many learning opportunities. Vocabulary, mathematics, phonics, and history are just a few of the software types available for teaching. The Internet enables students to research subjects and interact with other students across the country and around the world. Teachers also use computers to record grades, keep records, and perform other administrative tasks.

CAREER FACTS

Key Skills: The following are just a few of the skills needed to be effective and content in an early childhood teaching position.

- **Desire.** The number one skill for any early childhood teacher is a desire to work with children on a daily basis.
- **Patience.** The ability to stay calm, cool, and collected when children are not is essential.
- **Creativity.** Introducing subject matter in an interesting way promotes greater learning than simply lecturing. Creating games, crafts, and other hands-on activities to accompany a lesson or textbook chapter is sure to be more interesting for children.

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CAREER FACTS CONTINUED

- **Organization.** To ensure the classroom runs smoothly and records are kept orderly, organizational skills are critical. Teachers use organizational skills to plan lessons, prepare tests, determine grades, and keep on-going records on each of their students.
- **Communication.** Aside from being able to speak in a way that children can understand, teachers must also be able to communicate student problems and progress to parents and other members of the school staff.
- **Perception.** Teachers need to be able to identify problems. Students who have difficulty in school may have underlying physical or mental disabilities. Teachers who recognize such problems must also be willing to refer students and families to appropriate authorities.

Average Salary: Early childhood teachers earn an average of \$53,150 with experience.

Education/Training: Education and training requirements for preschool teachers range from a high school diploma to community college courses or a college degree. Requirements may also include a national Child Development Associate (CDA) credential. Elementary teachers must receive a bachelor's degree, attend an approved teacher-training program, and participate in supervised practice teaching before teaching a class on their own. Public school teachers must also be licensed to teach. Further requirements vary by state.

Employment Opportunities/Outlook: The number of positions available for elementary school teachers is expected to grow by 13 percent through 2018. The number of positions available for preschool teachers is expected to grow 19 percent through 2018.

Follow-Up!

Interview an early childhood teacher about his or her career. Be sure to prepare your questions in advance and set up an appointment with the early childhood teacher.

Marriage and Family Therapist

Career Profile
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Marriage and family therapy is a relatively new member of the mental health community. Just over 50 years ago, marriage and family therapy joined psychiatry, psychology, social work, and psychiatric nursing to become the fifth officially recognized core mental health category. Many people consider marriage and family therapy to be a very effective type of therapy.

Marriage and Family Therapists (MFTs) focus on solving problems, such as depression, anxiety, alcoholism, etc., by considering relationships between individuals and other family members. They work to understand the problems, direct communication between

individuals and their families, and change behavior patterns that may be fueling the problems.

Marriage and family therapists work in hospitals, business employee assistance programs, mental health centers, schools, social service agencies, prisons, private practices, universities, and research centers. They serve people from all walks of life—couples, families, older adults, and children, and they treat a wide range of problems. MFTs work with families facing mental illness, substance abuse, and sexual abuse. They also work with foster care families, couples with marital problems, juvenile criminals, and others.

CAREER FACTS

Key Skills: In order to effectively treat individuals and families, marriage and family therapists need a variety of skills. Among other things, they must:

- **Want to help others.** Like many professionals in medical or counseling fields, MFTs must enjoy working with and helping people regardless of age or background.
- **Show respect and compassion.** Many people are embarrassed by their need for professional counseling. MFTs need to be respectful and understanding of all types of relationship problems.
- **Communicate well.** MFTs strive to develop trusting relationships between themselves and their clients. In order to do that, MFTs must be able to understand and talk with people of all ages and personality types.

Average Salary: According to the United States Department of Labor Bureau of Labor Statistics, mental health professionals, including marriage and family therapists, earn an average of \$72,310 nationally per year.

Education/Training: After receiving a bachelor's degree in a mental health field, such as psychology, social work, or child development, MFT candidates must complete a master's program in Couples and Family Therapy. Many who are interested in teaching or researching go on to earn Ph.D.s in the field.

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Career Profile
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CAREER FACTS CONTINUED

Currently, all 50 states license or certify marriage and family therapists. While licensure conditions vary among states, most require graduates to obtain two years of supervised clinical experience. Thereafter, candidates may also have to take a licensing exam conducted by the Association of Marital and Family Therapy Regulatory Boards (AMFTRB). Once licensed, MFTs can legally practice in their state.

Employment Opportunities/Outlook: In recent years, the need for marriage and family therapists has increased dramatically. According to the American Association for Marriage and Family Therapy, this growth is due, in part, to an increase in stress on families in a rapidly changing world.

Follow-Up!

Interview a marriage and family therapist. How does he or she obtain referrals? What trend changes has he or she seen in your area regarding the need for marriage and family therapy?

Montessori Teacher

Montessori education was founded in 1907 by Dr. Maria Montessori. Dr. Montessori was the first female to become a medical doctor in her home country of Italy. Through her clinical studies, she realized that children learn from what they discover in their environment. In fact, she believed that children teach themselves. Her observations prompted her to develop Montessori methods of education.

Montessori education focuses on learning through all five senses. It takes place in prepared environments that encourage students to explore, work hard, be creative, and communicate. Although classrooms are organized by subject area, children are free to move around the room at their own pace. This approach allows the students to determine which materials and subjects are of most importance to them, and encourages learning about multiple subjects at the same time.

Montessori classes include children in three-year age groups (0-3 years, 3-6 years, 6-9 years, etc.). Montessori teachers are trained to teach children one-on-one, and to manage 30 or more students working on multiple tasks.

Montessori teachers respect students as individuals. They do not prepare detailed lesson plans. They do not make assignments. They do not correct and grade papers. Instead, they strive to recognize students' individual readiness to explore and learn subject matter.

They observe students closely and record notes of progress on each student. Based on their observations, they may informally plan projects for individual students as student interests dictate. Because Montessori teaching is individualized, it encourages children to improve upon their own skills without competition among other students.

CAREER FACTS

Key Skills: Like teachers in traditional schools, Montessori teachers need a number of skills to direct and educate students well.

- **Desire.** Montessori teachers must want to work with children on a daily basis.
- **Patience.** Montessori students are encouraged to follow their own interests, which can lead to disorder. The teacher's ability to stay calm, cool, and collected is essential.
- **Respect.** Montessori teaching techniques are based on appreciating each child's individual needs and interests.
- **Creativity.** Montessori teachers need to be creative in tailoring the learning environment and introducing material in a way that encourages individual student interests.
- **Observation.** Montessori teachers must monitor, understand, and record each student's individual learning needs.
- **Adaptability.** Because each student's needs are different, Montessori teachers must be able to adapt the learning environment to fit individual needs.
- **Communication.** Montessori teachers must be able to communicate with the children they teach as well as parents and other staff members.

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*Continued***CAREER FACTS CONTINUED**

Average Salary: According to the 2009 salary survey conducted by the American Montessori Society (AMS), certified Montessori teachers earn the following average incomes based on the age groups they teach:

- Teachers of ages 0–3 earn \$38,265 per year
- Teachers of ages 3–6 earn \$41,435 per year
- Teachers of ages 6–12 earn \$51,346 per year
- Administrators earn \$70,366 per year

Education/Training: The Association Montessori Internationale (AMI) and the American Montessori Society train Montessori teachers throughout the United States and world. Most United States programs require future teachers to have a bachelor's degree before entering Montessori training. However, some applicants without degrees may be accepted based on their background and goals.

Training concentrates on child development, Montessori methods, observation of students, and classroom training. Before training completion, candidates also participate in practice teaching under the supervision of an approved Montessori teacher.

Training is offered at three levels: infant (ages 0-3), primary (ages 3-6), and elementary (ages 6-12). Training courses usually last a minimum of one academic year, or may be offered over two or three consecutive summers.

Employment Opportunities/Outlook: According to the International Montessori Index, there have never been enough well-trained Montessori teachers to meet the world-wide demand. This trend is likely to continue.

Follow-Up!

If possible, make arrangements to observe at a local Montessori preschool and a traditional preschool. Take notes during your observation time concerning teaching methods, teacher-child interactions, and the classroom environment. Contrast the two preschools in a summary of your observations.

Music Therapist

Career Profile
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Working with clients to create, sing, move to, or listen to music, music therapists assist people with physical, psychological, and social challenges. They work with people of all ages and levels of ability. They serve people who suffer from psychiatric disorders, retardation, speech problems, hearing impairments, physical disabilities, and more.

Music therapists may operate in private practice or be employed by hospitals, psychiatric facilities, substance abuse centers, retirement homes, schools, correctional facilities, hospice programs, oncology treatment centers, etc. They may also work as advisors to music and special education teachers.

CAREER FACTS

Key Skills: In working with individuals of differing ages, backgrounds, and abilities, music therapists must possess many personal and professional abilities.

- **Music skills.** Because music is the therapeutic tool for this profession, music therapists must be skilled musicians. Undergraduate studies require levels of instrumental and vocal performance prior to graduation.
- **Communication skills.** Music therapists must be able to interact professionally with clients, families, and staff members. They must express thoughts effectively through written assessments, patient progress documentation, and treatment team meetings.
- **Understanding.** Therapy clients are frequently frustrated by their disabilities and weaknesses. Music therapists need to be respectful and understanding of their clients' problems.
- **Patience.** In dealing with multiple clients, problems, and situations, music therapists must remain relaxed and collected.
- **Creativity.** In order to help clients, music therapists must be inventive when creating therapy programs.
- **Teamwork.** Music therapists need to team with other health care professionals in order to design and apply treatment programs that address all health concerns.

Average Salary: Salaries vary by work setting, geographic location, years of experience, population served, and level of graduate education completed. According to the American Music Therapy Association (AMTA), music therapists can expect to earn between \$40,000 and \$59,000 annually.

Education/Training: To pursue a career in music therapy, students can enter a variety of college programs approved by AMTA.

Undergraduate programs will introduce students to music therapy techniques. Coursework will include music therapy, psychology, behavioral science, disabling conditions, and general studies. Students will have an opportunity to apply learned techniques to individuals through hands-on work in community or campus clinics. They will consider client needs, create treatment plans, apply therapy techniques, and evaluate changes in client status.

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CAREER FACTS CONTINUED

Graduate programs take a more detailed approach to music therapy education. These programs teach students about issues that are important to clinical application of music therapy.

Doctoral programs have not yet been approved by the American Music Therapy Association. However, some colleges do offer music therapy courses in conjunction with other doctoral programs.

Upon completing college coursework, music therapy graduates must complete 1,200 hours of clinical training, including a supervised internship. Thereafter, they are eligible to take the national examination offered by the Certification Board of Music Therapists. Once the exam is passed, graduates gain the credential needed for professional practice—Music Therapist-Board Certified (MT-BC).

Employment Opportunities/Outlook: According to AMTA, the future of music therapy is promising as research shows the effectiveness of music therapy used in physical rehabilitation and with Alzheimer's patients. As more consumers seek alternatives to traditional types of therapy, the need for music therapists will continue to rise.

Follow-Up!

Observe a music therapist at work with toddlers and older children in a child care setting. What challenges does the music therapist face when working with these two age groups?

Nanny

Nannies are child care professionals who care for children in their employer's private home. Some nannies live with the families they serve, while others simply spend work-days at the family's home. They are loving, nurturing, trustworthy companions who provide personal attention and extra care for a family's children.

Nannies themselves vary in age from 18 to 70 years, but most are hired to care for children from birth to age 10 or 12. They are expected to assist with early education, nutrition, health, and other needs, including:

- Bathing, dressing, and feeding children
- Organizing play activities
- Washing clothes
- Cleaning play rooms and bedrooms
- Transporting children to school, appointments, and activities
- Assisting with homework
- Setting behavioral guidelines
- Providing appropriate discipline

CAREER FACTS

Key Skills: As primary providers of day-to-day care for a family's children, nannies take on a tremendous amount of responsibility. In order to do their job well, they must:

- **Love children.** Above all, nannies must enjoy being around children for long periods of time.
- **Remain patient.** Children can be a lot of fun, but they can also be energetic, disruptive, and unruly. Nannies are bound to become frustrated from time to time, but it's important that they maintain patience. If discipline is in order, they must supply it in a fair and firm manner.
- **Anticipate problems.** If anything can go wrong, it will. That statement is especially true when working with children. By staying alert and focused, nannies can usually redirect problem behavior before trouble strikes.
- **Stay fit.** Energetic children require energetic caregivers. In order to keep up with the thoughts, behaviors, and activities of the average child, adults need to be physically and emotionally stable.
- **Communicate well.** Not only do nannies need to convey their wishes to the children they care for, but they also must be able to inform parents of their children's problems and progress.

Average Salary: Nanny salaries vary widely depending upon job duties, hours worked, education, experience, and geographic region. According to a 2009 survey conducted by the International Nanny Association, United States full-time nannies that live with their employers earn between \$300 and \$1,000 or more per week. Those who live on their own, but come to a family's home every day, earn between \$350 and \$1,000 or more per week. Keep in mind that live-in nannies also receive free room and board.

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Education/Training: The International Nanny Association (INA) has adopted the following standards for nannies:

- A nanny must be at least 18 years of age.
- A nanny must be a high school graduate (or equivalent).
- A nanny must be in good health, with proof of immunizations and tuberculosis testing, where applicable.

In addition to meeting these standards, INA also encourages nannies to receive training and learn special skills before applying for work. Many training programs across America offer classroom courses in child development, nutrition, safety, first-aid, CPR, and more. Nannies can also attend one-year certification programs, or attend college programs to obtain associate's or bachelor's degrees in early childhood education.

Employment Opportunities/Outlook: The number of child care facilities continues to rise. Many feel these facilities grant children better opportunities to learn educational and social skills in the company of other children. Given those beliefs and the fact that employing a single person to provide in-home child care can be costly, many families are opting to enroll their children in day care. The number of jobs available for all types of child care professionals is expected to grow 11 percent through 2018.

Follow-Up!

Investigate the need for nannies in your community. How does this need vary from national trends? If possible, interview a nanny about his or her career. What are the pros and cons of working as a nanny?

Nursing Aide

Career Profile
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Nursing aides work in hospitals and retirement centers to provide care for physically and mentally ill patients who are unable to care for themselves. They are often the primary care providers for hospital patients and center residents. They usually have far more interaction with the patients than other employees. This extra contact enables them to build trusting friendships with patients, especially long-term center residents.

Under the direction of a nurse, nursing aides answer call bells, make beds, tidy

patients' rooms, set up equipment, and more. They are also responsible for assisting patients with basic personal needs. They help patients walk, eat, bathe, dress, and use bedpans or restrooms.

Nursing aides may take basic medical readings, such as temperature, blood pressure, respiration, and pulse. They also monitor patients' physical, mental, and emotional conditions, then report changes to supervising staff.

CAREER FACTS

Key Skills: Successful nursing aides are very special people. Dealing with ill or disabled patients requires a unique set of skills. Among other things, they must:

- **Want to help others.** Nursing aides do not enter their field for financial reward. They become nursing aides because they want to help people. Helping patients with personal hygiene and routine tasks is not always fun, but can be enjoyed by people who love to help others.
- **Show respect, tact, and compassion.** When assisting people who cannot help themselves, it is important to show respect for them, be sensitive to their discomfort, and enable them to keep their pride and self-respect.
- **Communicate well.** Some individuals, such as stroke victims and mentally handicapped patients, are difficult to understand. Not only do nursing aides need to develop an understanding of these patients in a respectful manner, but they also must be able to discuss patient care with nurses and other staff.
- **Stay organized.** Nursing aides may be assigned anywhere from seven to 15 patients. Each patient has different needs. In order to meet each need, nursing aides must stay focused and organized.
- **Be patient.** When dealing with physically and mentally unhealthy people, nursing aides need plenty of patience. People who do not feel well can be grumpy and disorderly. When that happens, nursing aides must remain calm, cool, and collected.

Average Salary: Nursing aides earn an average of \$24,980 per year.

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CAREER FACTS CONTINUED

Education/Training: A high school diploma or equivalent is typically needed. Nursing aide training is offered in high schools, vocational technical centers, and some community colleges.

According to federal requirements, nursing aides who work in nursing care facilities must complete a minimum of 75 hours of training and pass an evaluation program. Thereafter, those aides are known as certified nursing assistants (CNAs) and are placed on the state registry of nursing assistants.

Employment Opportunities/Outlook: The number of positions available for nursing aides is expected to increase 18 percent through 2018.

Follow-Up!

Investigate the training requirements for nursing aides at various places of employment in your community, such as hospitals and nursing care facilities. How are the requirements similar or different from those listed above?

Optometrist

Optometrists use instruments and observation to examine patients' eyes, diagnose vision problems and diseases, and prescribe treatments. Sometimes optometrists are confused with other vision-related professionals. For instance, ophthalmologists have medical degrees and examine eyes, diagnose problems, and prescribe treatments. However, ophthalmologists also perform surgery. On the other hand, opticians simply fit eyeglasses or dispense contact lens prescriptions written by optometrists and ophthalmologists.

Optometrists test depth and color perception, focusing ability, peripheral vision, and eye coordination. They analyze test results and develop treatment plans, which may include glasses, contact lenses, prescription medications,

or surgery. They also diagnose eye conditions that may be related to other health problems such as diabetes or high blood pressure. In those instances, optometrists refer patients to medical doctors for further examination and treatment.

Some optometrists specialize in eye care for children, older adults, or partially sighted patients. However, most optometrists work in general practice and see patients of all ages and abilities.

Optometrists may work in hospitals, health maintenance organizations, or retail optical stores. However, most optometrists operate their own practice. Those professionals usually handle the business side of their practice as well. They hire employees, keep records, order appropriate supplies, pay bills, and more.

CAREER FACTS

Key Skills: Like all doctors, optometrists need many valuable skills. They must:

- **Communicate well.** Optometrists need to be able to talk with patients of all ages as well as communicate effectively with staff members.
- **Pay attention to detail.** When dealing with eyesight, optometrists must be careful in all aspects of their profession—examining, diagnosing, and prescribing.
- **Stay up-to-date.** Staying in tune with new technology and treatment options is essential. In fact, continuing education is required for license renewal in all states.
- **Be self-motivated.** Because most optometrists are self-employed in private practice, they must manage their business without direction or input from others.
- **Stay organized.** Optometrists, especially those who run their own business, must be able to categorize eyewear supplies and equipment, maintain patient files, and manage business paperwork.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, optometrists earn an annual average of \$106,960 nationally with experience.

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Education/Training: All states and the District of Columbia require optometrists to be licensed. The first step toward licensing is to complete at least three years of pre-optometric study at a school that is accredited by the Accreditation Council on Optometric Education of the American Optometric Association. Following their sophomore or junior year, students may take the Optometry Admissions Test, which measures academic ability and scientific understanding. Those who pass the test will go on to attend four years of schooling in an accredited program.

Graduates are awarded the Doctor of Optometry degree. To obtain licensing in the state in which they plan to practice, optometrists must pass written and clinical state board exams. Licenses must be renewed every one to three years depending upon state regulations. License renewal requires optometrists to complete continuing education courses.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for optometrists is expected to increase 24 percent through 2018.

Follow-Up!

Investigate reasons why the employment outlook for optometrists is expected to increase.

Pediatric Dentist

Pediatric dentists specialize in the oral tissue and tooth care of children from infancy to adolescence.

They remove decay, fill cavities, examine X-rays, apply protective sealants, whiten discolored teeth, straighten teeth, and repair broken teeth. They instruct children and their parents or guardians on diet, brushing techniques, and flossing practices. They alert parents or guardians to the risk of nursing decay—tooth decay in infants and toddlers that is associated with prolonged bottle or breastfeeding. They also administer pain-relieving anesthetics and write prescriptions for appropriate medications.

In performing dental tasks, pediatric dentists use an array of specialized instruments, including X-ray machines, drills, mirrors, lights, probes, brushes, etc. They also wear protective masks, gloves, and safety glasses to shield their patients and themselves from contagious diseases.

Most pediatric dentists work in private practices. In addition to caring for patients, those dentists must also manage their businesses. In doing so, they hire employees, keep records, maintain equipment, order appropriate supplies, pay bills, and more.

CAREER FACTS

Key Skills: As with pediatric physicians, pediatric dentists need a variety of specialized skills to treat their young patients.

- **Love children.** This is the foremost skill needed to become a pediatric dentist.
- **Be patient.** Children do not always sit still for dental work. In order to examine and treat children, pediatric dentists must remain calm and gentle.
- **Show compassion.** Children may be frightened to visit the dentist. To calm the nerves of their young patients, pediatric dentists should be understanding and reassuring.
- **Communicate well.** In order for office visits to go smoothly, pediatric dentists need to be able to discuss procedures on a level that their patients can understand. They also need to be able to speak comfortably and clearly with parents or guardians as well as other dental staff members.
- **Develop hand-eye coordination.** In order to use dental instruments correctly, quickly, and safely, pediatric dentists must make skilled use of their hands and fingers.
- **Stay organized.** Pediatric dentists must be able to organize supplies and equipment, maintain patient files, and manage paperwork.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, dentists, including pediatric dentists, earn an annual average of \$156,850 nationally with experience.

Education/Training: All 50 states and the District of Columbia require dentists to be licensed. In some states, pediatric dentists must be licensed to practice as specialists.

To become licensed dentists, students must first complete at least two years of pre-dental college education. Most students receive bachelor's degrees before seeking admission to dental school. Thereafter, they apply to dental schools that are accredited by the American Dental Association's Commission on Dental Accreditation.

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*Continued***CAREER FACTS CONTINUED**

Prior to entering dental school, future dentists must take the Dental Admissions Test. Test scores, grade point average, recommendations, and personal interviews determine whether a student will be admitted to dental school.

Once accepted into dental school, future dentists will attend four years of study. The first two years will be devoted to class and lab time. During the second half of dental school, students work under the supervision of licensed dentists to treat patients. Upon graduation, students are awarded Doctor of Dental Surgery (D.D.S.) or Doctor of Dental Medicine (D.D.M.) degrees.

Those wishing to specialize in pediatric dentistry must complete two to three years of additional training following dental school. This coursework includes child psychology, growth, and development.

To become licensed, dentists must pass written and practical exams. The written portion of the state tests may be fulfilled by passing the National Board Dental Examinations. Depending upon the state in which they plan to practice, pediatric dentists may need to complete additional testing to obtain a license to practice their specialty.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for dentists (including pediatric dentists) is expected to grow by 16 percent through 2018.

Follow-Up!

Investigate the need for pediatric dentists in your state. What additional requirements do pediatric dentists need to complete in your state?

Pediatrician

A pediatrician is a doctor who specializes in the care of children from infancy through adolescence.

Pediatricians work in a variety of settings. Some own their own private practices, some work in clinics among other doctors, and some work in hospitals. They usually work among other medical staff members, such as other doctors, nurses, laboratory professionals, and clerical employees. Regardless of the setting, a career in pediatrics is almost always demanding.

A typical day for a pediatrician may include visiting hospitalized patients before office hours. Once in the office, a doctor may see up to four patients per hour. In between

patients, the doctor may phone other doctors or return calls to concerned parents. After the office closes, the pediatrician may return to the hospital to visit sick children and new babies. Even after returning home for the evening, the day may not be over. "On call" pediatricians may be called at all hours of the night to answer questions, return to the office, or go to the hospital in emergencies.

The days are long, the cases are challenging, but the rewards are many. For a person who loves children, there are few rewards as sweet as gently reassuring a scared young patient, wiping the cheek of a tearful toddler, or being showered with the smiles and giggles of healthy children.

CAREER FACTS

Key Skills: Like all doctors, pediatricians need many valuable skills. They must:

- **Love children.** This is the foremost skill needed to become a pediatrician.
- **Communicate well.** Pediatricians need to be able to talk with the children they are treating as well as the adults who care for those children.
- **Retain a desire to learn.** Like all doctors, pediatricians must be willing to study throughout their career in order to stay updated on new medical advances and technology.
- **Make quick decisions.** Diagnosing, prescribing, interpreting test results, and managing patients all require quick thinking.
- **Possess good bedside manner.** When working with children and their concerned loved ones, it's important to have a warm, understanding personality.
- **Maintain emotional stability.** When dealing with sick children and hectic work place situations, pediatricians need to stay calm, cool, and collected.

Average Salary: The average income for all pediatricians is around \$161,410.

Education/Training: Those interested in becoming a pediatrician face many years of education and training. Premedical students must complete four years of undergraduate study, taking classes in physics, biology, mathematics, chemistry, etc.

After receiving their bachelor's degrees, students must earn acceptance into medical school. In doing so, doctoral candidates must pass the Medical College Admission Test (MCAT), submit transcripts and letters of recommendation to medical schools, and interview with admissions committees.

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*Continued***CAREER FACTS CONTINUED**

Once in medical school, students spend two years learning anatomy, biochemistry, physiology, psychology, pharmacology, microbiology, pathology, medical ethics, and more. An additional two years are spent examining and diagnosing patients under the supervision of experienced physicians.

In order to specialize in pediatrics, doctors usually take an additional three years of pediatric training. Thereafter, most potential pediatricians become Board Certified in Pediatrics by taking a special test. Those who pass the board certification also enter the Academy of Pediatrics—a group of doctors dedicated to the well being of children.

Still, the training never ends. Doctors continue to attend classes and training courses throughout their careers to remain up-to-date on changing technology and patient-treatment options.

Employment Opportunities/Outlook: The number of positions available for physicians (including pediatricians) is expected to grow by 22 percent through 2018.

Follow-Up!

Interview a pediatrician about his or her career. What does this pediatrician feel are the pros and cons of this career? What are the most difficult challenges of pediatrics?

Pharmacist

Pharmacists typically work in retail drug stores to fill and dispense medications that are prescribed by doctors and other qualified health practitioners. They counsel patients and answer questions about dosages, side effects, and other information related to prescriptions and over-the-counter medications.

They also assist doctors in medication selection, and advise doctors on dosages, possible drug interactions, and side effects associated with medications.

Some pharmacists work in hospitals or clinics. In these positions, they buy medical supplies, advise staff members on medication selection, and counsel patients on prescriptions. Pharmacists who work in home health care monitor medications and prepare injections.

CAREER FACTS

- **Key Skills:** Pharmacists have a great deal of responsibility in ensuring the well-being of their clients. They need skills, including:
- **Organization.** To maintain records on patients that will assist them in determining drug interactions and more, pharmacists need to be organized.
- **Attention to detail.** Potentially life-threatening reactions can occur if a pharmacist overlooks a patient allergy or fails to identify drugs that may interact harmfully.
- **Confidentiality.** Like doctors and other health care professionals, pharmacists are responsible for ensuring patient privacy. It is unethical for pharmacists to share information with others regarding patient illnesses and medications.
- **Desire to help others.** Pharmacists are responsible for dispensing the medication that will help people live healthfully. They must enjoy helping others.
- **Communication.** Pharmacists must be able to talk to and understand medical conversations with doctors, then explain medication details to patients who have little medical knowledge.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, pharmacists earn an annual average of \$106,630 nationally with experience.

Education/Training: Pharmacists *must* receive the Doctor of Pharmacy (*Pharm.D.*) from a college accredited by the American Council on Pharmaceutical Education. Prior to acceptance into a *Pharm.D.* program, students must complete two years of pre-pharmacy college study. Some colleges also require *Pharm.D.* program entrants to pass a Pharmacy College Admissions Test.

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CAREER FACTS CONTINUED

After completing four years of study in an accredited Pharm.D. program, future pharmacists must also pass a licensing exam in the state in which they plan to practice. Pharmacists planning to work in research careers may go on to earn their master's and Ph.D. degrees in pharmacy.

Ongoing education is crucial for all pharmacists. They must stay up-to-date on details related to the newest medications available.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for pharmacists is expected to increase 17 percent through the year 2018.

Follow-Up!

Investigate special knowledge needed about child development by pharmacists.

Physical Therapist

Career Profile
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Physical therapists (PTs) work in hospitals, clinics, private offices, homes, and schools to treat patients who are physically limited by injury or disease. After examining medical histories, PTs test strength, coordination, flexibility, respiration, and other physical functions in order to develop a therapy program. Programs are created to help restore function, improve mobility, relieve pain, limit permanent disability, and promote overall fitness.

Once a program is created, PTs discuss the details with the patients. They explain program details, exercises, and goals. PTs work directly with patients to ensure exercises and tasks are performed correctly and safely. In some cases, they use massage, electrical stimulation, hot or cold packs, and ultrasound to relieve pain and swelling. They also teach patients to use devices such as crutches, artificial limbs, and wheelchairs.

CAREER FACTS

Key Skills: Physical therapists are responsible for the physical recovery and well-being of their patients. In order to do their job well, PTs must maintain good:

- **Decision-making skills.** PTs are responsible for assessing patient abilities. They must be able to decide on specific treatment options to address a huge range of physical needs. They must also decide when a patient is capable of returning to home or work environments.
- **Communication skills.** PTs work one-on-one with a variety of patients and their families. It's important that PTs are able to communicate therapy goals, listen to concerns, and remain calm when patients become frustrated by pain or lack of physical abilities.
- **Physical fitness.** PTs frequently stoop, kneel, crouch, lift, and stand at odd angles to assist their patients with special movements. Aside from assisting with the physical demands of the job, physical fitness is likely to be seen as a sign of strength and prompt respect from patients who seek fitness goals themselves.

Average Salary: Physical therapists earn an average of \$76,220 per year with experience.

Education/Training: After receiving a bachelor's or master's degree from an accredited physical therapist program, PTs must be licensed by the state in which they plan to practice.

High school students interested in a career in physical therapy should consider classes such as biology, chemistry, social science, mathematics, and physics.

Even after becoming a PT, professionals must stay up-to-date on techniques and advances. Continuing education courses and workshops are a must for PTs.

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CAREER FACTS CONTINUED

Employment Opportunities/Outlook: The job outlook is bright for physical therapists. Given the advances of modern medicine, older adults, heart-attack/stroke victims, trauma patients, and others are now living through grave illnesses and injuries. These survivors will most likely need physical therapy to ensure complete recovery and healthy lives. The number of positions available for physical therapists is expected to grow by 30 percent through 2018.

Follow-Up!

Investigate the specific college requirements for a degree in physical therapy.

Play Therapist

Children lack the mental maturity to put their thoughts, feelings, and emotions into words. Instead, they use play as their main method of communicating. Play therapists offer child clients a variety of toys to use in expressing themselves.

Play therapists use non directive and directive therapy approaches. Non directive therapy allows children to select toys, games, and activities that are of interest to them. Therapists listen, observe, and note what types of play children enjoy and how they play to assess the children's health and well-being.

Through directive therapy, a play therapist provides more structure to children's play. In order to gain a better understanding of their clients, a therapist may ask children to draw pictures or play a certain game.

Through both types of therapy, play therapists try to connect children's play methods to their life situations. For instance, children who are physically abused may pull the hair on a baby doll. In order to gain a clear understanding of children and their lives, play therapists rely on a variety of toys.

- **Family or nurturing toys.** To learn about children's relationships with family members, therapists may use dolls, stuffed animals, blankets, baby clothes, kitchen utensils, and furniture made especially for children.
- **Scary toys.** To learn about children's fears, therapists may use rubber or plastic snakes, dinosaurs, insects, or alligators.
- **Aggressive toys.** Because children may use these toys violently, some therapists choose not to use aggressive toys in therapy. Those therapists that do use aggressive toys may introduce items such as toy weapons, hand-cuffs, toy soldiers, or rubber baseball bats.
- **Expressive toys.** When encouraging children to share feelings and illustrate relationships, therapists may use artistic or creative materials like crayons, markers, glue, glitter, or paints.
- **Pretend toys.** To persuade children to play different roles or imitate others, therapists may use masks, hats, jewelry, blocks, puppets, etc.

CAREER FACTS

Key Skills: To pursue a successful career in play therapy, individuals must possess a number of key skills, including:

- **Love for children.** Play therapists spend most of their time working one-on-one with children. They must want to help and enjoy being with children.
- **Communication skills.** Play therapists need to be able to communicate on a child's level, as well as discuss therapy options and outcomes with children's parents and other health professionals.
- **Patience.** Play therapists must remain stable and easy going in order to develop trusting relationships with the children they treat.
- **Creativity.** Play therapists must be imaginative when developing types of play and introducing toys that will assist children in expressing themselves.

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*Continued***CAREER FACTS CONTINUED**

Average Salary: Because play therapy itself is not licensed or governed by state or national agencies, salary figures are not available for the profession. Salaries for play therapists are relative to degree status and the field in which play therapists graduated. According to the United States Department of Labor, Bureau of Labor Statistics, national average earnings with experience for some of the fields associated with play therapy are as follows:

- Social workers earn an average \$43,540 per year.
- Psychologists earn an average \$72,310 per year.
- Psychiatrists earn an average \$163,660 per year.

Education/Training: Colleges and universities are increasingly providing graduate courses in play therapy, as well as opportunities for play therapy research and supervised experiences. The University of North Texas at Denton (UNT) houses one of the largest play therapy training centers.

Although they cannot receive a degree specifically in play therapy, graduate students at UNT and other colleges and universities around the country can take some courses on play therapy, conduct supervised play therapy experiences, and specialize in the subject. Students may pursue a degree in psychology, psychiatry, social work, marriage and family therapy, and more.

A degree in one of the mental health fields will enable a graduate to work under the supervision of a licensed professional or within an agency. In order to practice independently, mental health professionals usually become licensed. Licensing requirements vary by state.

In addition to becoming licensed as mental health professionals, play therapists can improve their professional qualifications by registering with various play therapy associations. For example, to earn a Registered Play Therapist credential with the Association for Play Therapy, an applicant must have:

- a current and active individual state license or certification for clinical mental health practice.
- a master's degree or higher in a medical or mental health profession.
- completed APT approved graduate course work.
- a minimum of 150 hours of approved play therapy instruction.
- two years (2000 hours) of supervised clinical experience in the applicant's chosen field (ie., psychology, social work, marriage and family therapy).
- 500 hours of supervised play therapy experience, including 50 hours of play therapy supervision.

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CAREER FACTS CONTINUED

To become certified by the International Board of Examiners of Certified Child and Play Therapists (IBECPT), an applicant must have:

- a master's in Practice Based Play Therapy or a master's or medical degree in an appropriate profession.
- a minimum of 2500 hours of direct clinical practice in child play therapy.
- a minimum of 200 hours in child play therapy practice under the supervision of a certified supervisor or professor.

Applicants may also be required to complete a certification interview and a written examination. Registered and licensed play therapists are also required to attend continuing education and training courses throughout their careers.

Employment Opportunities/Outlook: According to the Play Therapy International Organization, play therapy is an emerging profession with plenty of potential career opportunities in the United States.

Follow-Up!

Investigate the need for play therapists in your community and state. Do your community and state needs follow the national trends? Why or why not?

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School Bus Driver

School bus drivers are responsible for safely transporting students from between school and home. They typically drive the same routes every day. They pick up students in the morning and deliver them to school. After school they return students to their homes. Some school bus drivers also transport students to sporting events, field trips, and other school-sponsored activities.

In order to ensure the safety of their passengers, school bus drivers must be alert, avoid sudden stops, and keep order among students.

In addition to their driving duties, school bus drivers also prepare weekly reports for their school districts or busing companies to identify the number of students transported, trips or routes completed, hours worked, miles driven, and fuel gallons burned.

CAREER FACTS

Key Skills: To assist them in meeting their responsibilities, school bus drivers must be:

- **Reliable.** School bus drivers are responsible for completing their routes on schedule with little or no supervision. They must be trustworthy and dependable.
- **Authoritative.** Between school and home students may become unruly. In order to maintain order on their buses, school bus drivers must enforce appropriate rules of conduct.
- **Patient.** As with other child care careers, school bus drivers must be able to remain calm, cool, and collected when children are not.
- **Communicative.** School bus drivers must be able to communicate on a level that their passengers can understand. Likewise, they must be able to communicate problems to school authorities or bus company superiors.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, school bus drivers earn an annual average of \$28,050 nationally with experience.

Education/Training: Federal and state regulations control most school bus driver requirements. Federal regulations state that school bus drivers must hold a commercial driver's license (CDL) from the state in which they live. In order to receive a CDL, potential school bus drivers must pass a written test covering the rules of the road as well as vehicle knowledge. They must also pass a driving exam to prove they can operate a school bus safely.

Prior to taking their CDL exams, future bus drivers may benefit from training that covers school bus driving policies, state and local laws, safe driving practices, first aid, special needs of physically and mentally disabled children, and emergency evacuation procedures. These training courses may be offered by local community colleges or busing companies.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for school bus drivers is expected to increase 7 percent through 2018.

Follow-Up!

Interview a school bus driver in your community. What are the pros and cons of his or her work?

Postsecondary Education Teacher

Postsecondary education teachers teach students and conduct research. Most postsecondary education teachers are college professors who instruct undergraduate students, graduate students, or both.

They are organized by department, based on the subject in which they specialize. They may teach multiple courses related to their department. For instance, a postsecondary mathematics teacher may teach algebra, calculus, geometry, and other related courses.

Postsecondary education teachers may teach hundreds of students in a large lecture hall or conduct smaller classes for less than

30 students. Like all teachers, professors must prepare lectures and assignments, grade papers and exams, keep records on their students, and work with students individually as needed. Their work hours are divided among preparing for class, teaching class, and holding office hours or counseling sessions for individual students.

In order to remain effective, postsecondary education teachers must stay up-to-date on topics and breakthroughs within their areas of expertise. They are also responsible for conducting research in their fields.

CAREER FACTS

Key Skills: The following are just a few of the skills needed to be a postsecondary education teacher:

- **Dedication.** In order to teach effectively and conduct appropriate research, postsecondary education teachers should be devoted to their field of study.
- **Creativity.** Postsecondary education teachers need to use creativity in presenting material to students and in conducting research.
- **Organization.** Postsecondary education teachers use organizational skills to plan lessons, prepare tests, determine grades, and keep ongoing records on each of their students.
- **Communication.** Postsecondary education teachers need to be able to speak on the level of their students as well as interact effectively with other faculty members.
- **Self-motivation.** Little direction is given to postsecondary education teachers. They need to be self-starters in both teaching and researching.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, postsecondary education teachers earn an annual average of \$62,160 nationally with experience.

Education/Training: Most colleges and universities require postsecondary education teachers to hold Ph.D. degrees. Doctoral degree holders are usually considered for full-time, long-term positions; however, master degree holders may be considered for part-time or temporary positions.

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*Continued***CAREER FACTS CONTINUED**

Candidates that do not hold doctoral degrees may also be considered for assistant professor or instructor positions.

Those who wish to pursue a doctoral degree are likely to spend an additional six to eight years in school after receiving their bachelor's degree. In addition to coursework, doctoral degree candidates must also complete a dissertation—a written report discussing their own original research conducted within their field of study. Completed under the direction of one or more faculty advisors, a student's dissertation requires full-time work for up to two years.

Some fields of study may also require a potential postsecondary education teacher to conduct an additional two years of postdoctoral research before he or she is hired.

In addition to schooling, postsecondary education teacher candidates may also participate in the Preparing Future Faculty program offered by the Association of American Colleges and Universities and the Council of Graduate Schools. The program offers graduate students an opportunity to learn hands-on teaching skills, develop curriculums, and balance the teaching, research, and administrative roles of postsecondary education teachers.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for postsecondary teachers is expected to grow 15 percent through 2018.

Follow-Up!

Investigate the specific education requirements for postsecondary teachers in the field of early childhood education.

School Nurse

Like all nurses, school nurses work to promote health, prevent illness, and help patients cope with health problems. The difference is that school nurses work primarily with students. As described by the National Association of School Nurses (NASN), “school nursing is a specialized practice of professional nursing that advances the well-being, academic success, and life-long achievement of students.”

NASN realizes that the ability of a student to learn is directly affected by the student’s health. Unhealthy students will lack concentration and be less likely to understand new subject matter. To ensure students remain healthy and get the care they need, school nurses perform a variety of functions.

- **Assess student health.** To gain a better understanding of their patients, school nurses explore student records and health histories. They perform vision, hearing, growth, and scoliosis (spine curvature) exams. They assess results and consider treatment options.
- **Create and apply health plans.** School nurses discuss student health status with parents, guardians, and school personnel. They suggest school program changes to help meet student needs, then assist in making appropriate changes.
- **Refer patients to other resources.** If health issues cannot be resolved in the school office, school nurses refer students to physicians and counselors as needed.
- **Perform crisis intervention.** School nurses are often the first line of defense in protecting students from emotional and physical abuse. When abuse is evident, they contact appropriate authorities to remove children from unsettling homes and place them in appropriate care.
- **Provide health education.** Aside from being a resource for health education teachers, school nurses also work one-on-one with students to ensure understanding of health issues. They counsel students on mental health, pregnancy, sexually transmitted diseases, substance abuse, and more.
- **Promote health careers.** School nurses are great resources for students considering careers in health care. They provide first-hand accounts on schooling, training, and working in the medical field.
- **Counsel school staff.** Aside from assessing and treating student health problems, school nurses also care for teachers, administrators, and other school employees.

CAREER FACTS

Key Skills: School nurses, like all nurses, need a variety of skills to perform their jobs well.

- **Want to help others.** The number one priority of all nurses, including school nurses, should be the desire to help others.
- **Show respect and compassion.** In order to develop trusting relationships with students, school nurses must show respect for their patients. It is also important that they show understanding for students—especially young, and sometimes frightened, children.
- **Communicate well.** Depending upon the school in which they work, nurses may have to communicate with young students as well as high school students. In addition to understanding their patients, they must be able to discuss student health issues with other medical personnel, school officials, and parents/guardians.

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*Continued***CAREER FACTS CONTINUED**

- **Tolerate unpleasant tasks.** A strong stomach is a great asset for nurses. School nurses are often faced with bleeding or vomiting students. When that happens, there's no time for queasiness.
- **Be patient.** Student patients can be frustrated, scared, and unruly. Regardless of patient attitude, school nurses must remain calm and focused to properly assess and care for students.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, registered nurses across America, including school nurses, earn an average of \$66,530 per year.

Education/Training: According to the National Association of School Nurses (NASN), 99 percent of all school nurses are registered nurses (RNs).

Future RNs can choose from three educational paths. Nursing diploma programs are operated by hospitals and take two to three years to complete. Associate degree in nursing (A.D.N.) programs are offered through community and junior colleges and also take two to three years to complete.

Bachelor of science degrees in nursing (B.S.N.) are awarded after four to five years of study at a college or university.

Many A.D.N. and diploma holders later enter B.S.N. programs to prepare for greater nursing opportunities.

Regardless of the degree path chosen, students will participate in class instruction as well as supervised clinical practice. They will take courses in anatomy, physiology, microbiology, chemistry, nutrition, psychology, and more. Clinical practice may take place in hospitals, retirement homes, public health departments, home health agencies, or ambulatory clinics.

Upon receiving a degree, future RNs must pass a national licensing exam.

Employment Opportunities/Outlook: The number of positions available for nurses, including school nurses, is expected to increase 22 percent through 2018.

Follow-Up!

Investigate the need for RNs experienced in pediatrics in your area. What additional education and training requirements are needed for this area of specialization?

Special Education Teacher

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While some special education teachers work with children who have severe disabilities, most use a general education curriculum to teach children with mild and moderate learning disabilities, speech impairments, mental retardation, hearing impairments, visual impairments, etc.

They may work with infants, toddlers, and school-age children. Special education teachers may tutor children who are homebound or hospitalized, work with families to assist in development of young children with medical problems, assist general education teachers in their classes, or teach classes specific to special education students.

Regardless of the setting, special education teachers develop Individualized Education Programs (IEP) for each student. IEPs are tailored to meet the learning styles and abilities of each student. For instance, one IEP may outline goals that an elementary student needs to attain in preparation for middle school.

To ensure students' needs are met completely, special education teachers work with the students themselves, parents and caregivers, social workers, school administrators, psychologists, occupational and physical therapists, and other teachers.

CAREER FACTS

Key Skills: Special education is a physically and emotionally challenging field of work. In order to become a successful special education teacher, individuals need:

- **Patience.** Students who are not fully developed physically, mentally, or emotionally can become frustrated, anxious, and overexcited. In order to help these students, special education teachers need to be understanding and tolerant.
- **Creativity.** In order to develop Individualized Educational Programs and apply teaching methods based on student capabilities, special education teachers must be imaginative.
- **Organization.** To ensure the classroom runs smoothly and records are kept orderly, organizational skills are critical. Special education teachers use organizational skills to plan lessons, arrange class settings, and document the progress of their students.
- **Communication skills.** Special education teachers must be able to communicate in a way that their students can understand, as well as communicate ideas and progress to parents and caregivers, psychologists, other teachers, school administrators, and others.
- **Emotional stability.** Special education teachers must be able to accept student disabilities and remain understanding when outbursts or problems occur.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, special education teachers who specialize in preschool, kindergarten, and elementary school students earn an annual average of \$53,770 nationally with experience.

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CAREER FACTS CONTINUED

Education/Training: Special education teachers must be licensed by the state in which they teach. All states require special education teachers to receive a bachelor's degree and complete a teacher preparation program, which includes supervised practice teaching. Many states also require special education teachers to obtain a master's degree in special education.

Most bachelor's degree programs in special education include four years of schooling; however, many universities require a fifth year of graduate study. The last year of the program is typically spent student teaching under the supervision of a certified teacher.

Coursework within the field of special education includes educational psychology, legal issues of the profession, child development, and more.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for special education teachers is expected to increase 17 percent through 2018.

Follow-Up!

How does the need for special education teachers in your area compare to the national average?
In what places are special education teachers employed?

Speech–Language Pathologist

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Speech-language pathologists work to diagnose and treat individuals with speech, language, or swallowing disorders. Their patients may include people who:

- Cannot make speech sounds.
- Stutter.
- Have extremely high-pitched or harsh voices.
- Wish to minimize their ethnic accents.
- Experience difficulty in swallowing.

Speech-language pathologists use oral interviews, written exams, and special instruments to diagnose disorders which may be the result of hearing loss, brain injury, stroke, cerebral palsy, mental retardation, cleft palate,

and other inborn, developmental, or acquired problems.

They work in speech and language clinics, medical facilities, home health agencies, schools, and other facilities. They counsel patients and their families in dealing with speech, language, or swallowing disorders. Speech-language pathologists also work with family members to minimize behaviors that may contribute to the problem. In turn, they encourage patients and family members to use techniques that improve communication.

Some speech-language pathologists choose careers in research or equipment and technique development.

CAREER FACTS

Key Skills: Speech-language pathologists have a great deal of responsibility in assessing and improving the speech, language, or swallowing abilities of their patients. They need skills, including:

- **Organization.** To maintain records on diagnosis, treatment, and progress on each of their patients, speech-language pathologists must be organized.
- **Attention to detail.** In order to diagnose problems, understand patient communication, and assess progress, speech-language pathologists must concentrate and remain detail-oriented.
- **Patience.** Working with people who have difficulty communicating can be frustrating. Speech-language pathologists must remain calm and encouraging for their patients.
- **Communication.** Speech-language pathologists must be able to talk to, listen to, and understand patients who have speech and language problems. They must also be able to counsel family members regarding the diagnosis, treatment, and progress of patients.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, speech-language pathologists earn an annual average of \$68,350 nationally with experience.

Education/Training: Speech-language pathologists must meet licensing regulations in most states. Nearly all of those states require speech-language pathologists to hold a master's degree. Additionally, they must complete at least 300 hours of supervised clinical experience, pass a national examination, and participate in nine months of postgraduate professional clinical experience.

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CAREER FACTS CONTINUED

Master's degree recipients may also acquire the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP), which is awarded by the American Speech-Language-Hearing Association. In order to receive the certificate, graduates must complete 375 hours of supervised clinical experience, participate in a 36-week postgraduate clinical fellowship, and pass a written examination.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for speech-language pathologists is expected to increase 19 percent through the year 2018.

Follow-Up!

If possible, interview a speech-language pathologist in your community. How does he or she see the need for speech-language pathology increasing or decreasing in your area? Does your community appear to follow the national trend? What are the benefits and challenges of a career in speech-language pathology?

Teacher Assistant

The extra support provided by teacher assistants enables teachers to spend more time planning lessons and educating. Teacher assistants tutor children, provide one-on-one attention to students, and supervise students outside the classroom. They also grade papers, record grades, prepare teaching materials, set up equipment for demonstrations, stock supplies, operate projectors, and organize classroom equipment.

In addition to assisting healthy children, some teacher assistants work with infants and toddlers who are disabled or developmentally challenged. Therapists or teachers may instruct

teacher assistants to play games or conduct exercises to help the children develop.

Other teacher assistants work with special education students, particularly in schools where students with disabilities are included in regular classes. They may accompany special education students to class and assist them with materials. They may tutor students after school, then observe and record progress. For students with physical disabilities, teacher assistants may help students get to classes on time, help them with their lunches, assist them in getting on the bus, and more.

CAREER FACTS

Key Skills: Regardless of whether they are working with special education students or assisting a teacher of gifted students, teacher assistants need:

- **Desire.** Teacher assistants must enjoy being around children of all abilities and backgrounds. They must want to help students.
- **Team spirit.** In order to effectively serve teachers and students, teacher assistants must be comfortable taking instructions and working with others.
- **Patience.** When taking instructions from superiors and working with children, teacher assistants must remain open-minded and tolerant.
- **Organization.** Teacher assistants are often in charge of keeping classrooms orderly, maintaining student records, and preparing teaching materials. In order to do these tasks, they must be organized.
- **Communication.** Aside from being able to speak in a way that children can understand, teacher assistants must also be able to communicate to teachers, parents, and other school staff members.

Average Salary: According to the United States Department of Labor, Bureau of Labor Statistics, teacher assistants earn an annual average of \$24,280 nationally with experience.

Education/Training: About one-third of all states impose educational requirements for teacher assistants. Most of those states require a high school diploma and some college training. In states, individual school districts determine their hiring requirements.

Employment Opportunities/Outlook: According to the United States Department of Labor, Bureau of Labor Statistics, the number of positions available for teacher assistants is expected to increase 10 percent through 2018.

Follow-Up!

Interview a teaching assistant in your school district. What does he or she like about the job?

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Art Therapist

Art therapy began in the 1930s when psychiatrists began evaluating their patients' artwork. They tried to find links between the artwork and illnesses of their patients.

Today, art therapy is used to enhance and improve the physical, mental, and emotional well-being of people of all ages. In order to gain an understanding of their clients' developmental, medical, educational, social, or

psychological impairments, art therapists may expose patients to images, or ask them to create art themselves.

In treating patients, art therapists may also work with physicians, psychologists, nurses, counselors, social workers, and teachers. They work in hospitals, clinics, shelters, schools, correctional facilities, older adult community centers, art studios, or private practice.

CAREER FACTS

Key Skills: In addition to having an appreciation for and understanding of art, successful art therapists must also possess a number of key skills, including:

- **Sensitivity.** Therapy patients may be depressed, embarrassed, pained, and frustrated. It is important for therapists to reassure and show understanding for their patients.
- **Communication.** Like all therapists, art therapists must be able to talk with and listen to patients, family members, and other professional staff.
- **Flexibility.** Art therapists must be able to adapt to their patients' needs. In doing so, they are better able to use a variety of therapy methods to fit changing situations.
- **Creativity.** Art therapists must use their imaginations when selecting types of art for patients to view or create.

Average Salary: According to the American Art Therapy Association (AATA), the median income of art therapists is \$45,000 per year. Salaried administrators in art therapy may earn up to \$100,000 per year. Art therapists who hold doctoral degrees, state licenses, and operate in private practice earn \$75 to \$150 per hour.

Education/Training: According to the American Association of Art Therapy (AATA) requirements, art therapists must hold at least a master's degree in art therapy, a master's degree with an emphasis in art therapy, or 24 semester units in art therapy with a master's degree in a related field.

In addition to master's degree requirements, the Art Therapy Credentials Board establishes practice and supervision requirements for becoming a registered art therapist (ATR). An individual who holds a master's degree in art therapy must complete 1,000 hours of direct client contact hours. One hour of every ten hours of client contact must be supervised.

Employment Opportunities/Outlook: According to the American Art Therapy Association, art therapy is a growing field. Employment opportunities for art therapists are expected to continue rising as the field becomes more and more recognized by professionals and clients.

Follow-Up!

Investigate the additional American Association of Art Therapy requirements for those who hold degrees not associated with art therapy. Use print or Internet resources to locate the requirements of the Art Therapy Credentials Board.