

# SCIENCE CAREERS BULLETIN BOARD

## NEUROSCIENTIST

Neuroscientists are scientists who focus on the brain and the nervous system.



## BOTANIST

Botanists study plant life and how the environment affects different species.



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# ARCHAEOLOGIST



**Archaeologists study past human activity by excavating, dating, and analyzing physical remains.**

# This resource includes:

- Labels for Each Career Include:
  - Career Title
  - Picture (Male and Female option for each)
  - Description of Career
- Full Size Printable Page of Career in Color
- Full Size Printable Page of Career in Black/White
- Bulletin Board Letters (3 Options):
  - Science Careers
  - Careers in Science
  - So You Want to be a Scientist



# NEUROSCIENTIST

Neuroscientists are scientists who focus on the brain and the nervous system.



# BOTANIST

Botanists study plant life and how the



Chloe Campbell  
EDUCATION

2 Versions: Black/White  
Images or Colorful Images

# What's the best way to use this bulletin board?

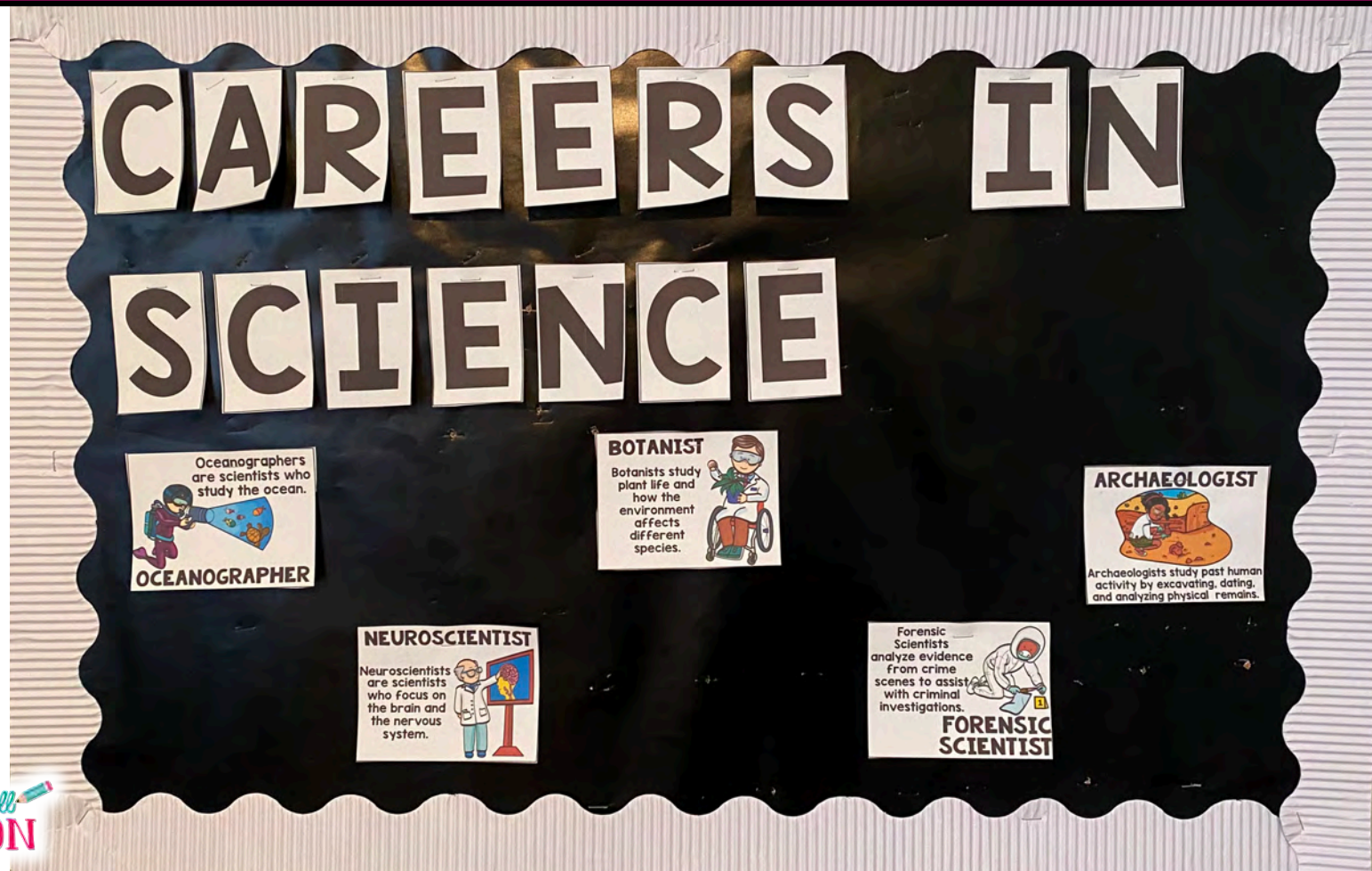
- Add one career every day as you read about it more in depth.
- Complete the entire bulletin board then refer to each career as you learn/read about it.
- Display each career to encourage students to learn more about it.

- Archaeologist
- Astronomer
- Biochemist
- Botanist
- Climatologist
- Ecologist
- Forensic Scientist
- Geologist
- Laboratory Technician
- Marine Biologist
- Neuroscientist
- Oceanographer
- Pharmacologist
- Speleologist

# 14 Science Careers



Purchase now to add  
science careers to your  
bulletin board!





# CAREERS IN STEM



## SPELEOLOGIST

Speleologists study caves and their ecosystems.

A speleologist may design or redesign cave systems (like tourist attractions), repair damaged natural caves, or work in locating caves. Some speleologists also examine caves to see if they have potential sources of minerals or fossil fuels. There are many aspects to studying caves: One could study how they formed, the zoological species that live in them, how stalagmites and stalactites form, the process of water within them, and even search for fossils within them. Scientists could even study the native plants and animals that live in cave systems.

Speleology is such a specialized type of science, it is rare to find a college program specifically for it. Geoscience, the study of Earth, is a broad term that would include speleology. If you are interested in becoming a speleologist, you may want to take geology and biology.

1. What do you think is the most important part of this career?  
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2. If you could speak to a speleologist, what three questions would you want to ask them?  
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3. If you wanted to go into this field of science, what topic would you need to study?  
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4. What do you think a typical day would look like for a person working in this field?  
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5. If you were hiring someone to work as a speleologist, what two questions would you want to ask them?  
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# Informational Texts



# BIOCHEMIST

Biochemists study the chemical and physical makeup of living things and biological processes.

Biochemists seek to understand the roles of chemical compounds and processes that occur in living things. They will study cell development, growth, and heredity to develop products and processes that improve our lives. Some biochemists develop tests used to detect diseases, genetic disorders, and other illnesses. They first will conduct basic research to understand what is occurring. Then, they will apply research to solving a particular problem. Biochemists also study genetic mutations in organisms that lead to cancer and other diseases. They will apply research to understanding how genetic mutations in organisms that lead to cancer and other diseases. They will apply research to understanding how genetic mutations in organisms that lead to cancer and other diseases.



# BOTANIST

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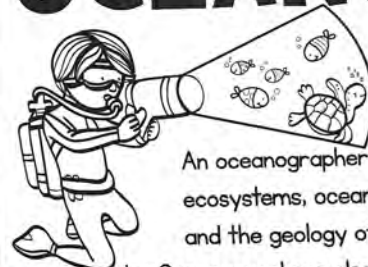
Botanists study various parts of plants, from the microscopic level to the ecosystem level. They may analyze the physiological processes (like photosynthesis), the evolutionary history, or their current relationships with their environment. Some botanists will study how plants respond to stresses like pests, climate change, and diseases. Others will study how a species of plant invades an area and changes the ecosystem. Botanists can conduct experiments to develop environmentally safe ways to control weeds, diseases, and pests. Some others may try to find uses for plants as medicines, tools, biofuels, or even fabrics. Botanists can work for pharmaceutical companies, museums, parks, botanical gardens, seed companies, or biotechnology firms. Some spend a majority of their time outside, while others may work primarily in laboratories and offices.



If you are interested in becoming a botanist, you should take classes in math, chemistry, physics, and biology in high school. Once you enter college, you'll need at least a four-year degree. If you want to focus on research or teach botany at a college, you'll need a Ph.D. No matter the path you take, you'll want to focus on topics like plant anatomy, plant systems, cell biology, plant development, and environmental science.

# OCEANOGRAPHER

Oceanographers study the Earth's oceans and their contents, and surrounding environment.



An oceanographer studies a wide range of topics, including marine life, ecosystems, ocean circulation, plate tectonics, properties of the ocean, and the geology of the seafloor. There are many specialties within oceanography. Oceanographers also do a variety of tasks: they can visit locations to collect samples, analyze seawater components like the impact of chemicals on marine organisms, conduct laboratory tests on samples, use chemistry to understand how ocean currents move seawater around the world, make geologic maps and charts, study waves, currents, and coastal erosion, write scientific reports, and/or present their findings to clients and colleagues.

In order to become an oceanographer, you'll want to take as many Earth science, biology, chemistry, physics, mathematics, and computer science courses as you can. In college, students would first earn a Bachelor's degree in chemistry, physics, or marine biology before moving on to an advanced degree in oceanography program.

- Archaeologist
- Astronomer
- Biochemist
  - Botanist
- Climatologist
- Ecologist
- Forensic Scientist
- Geologist
- Laboratory Technician
  - Marine Biologist
  - Neuroscientist
  - Oceanographer
  - Pharmacologist
  - Speleologist

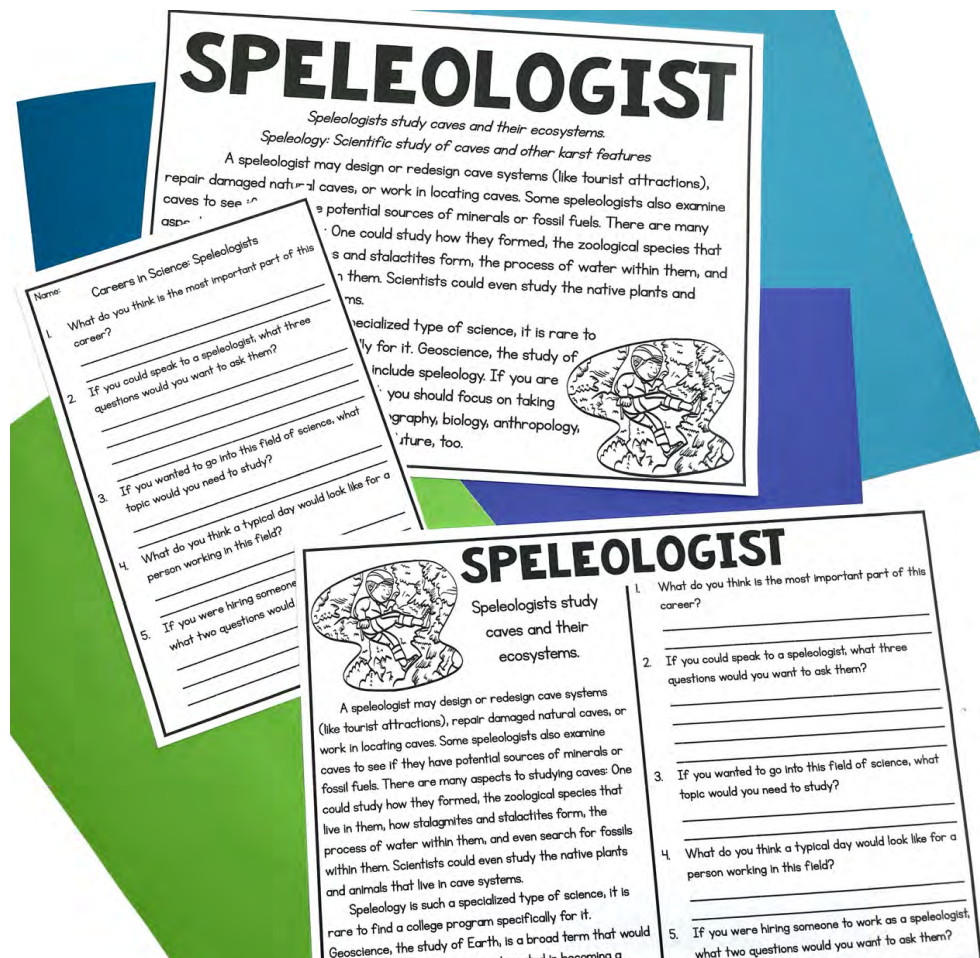
# **Careers in Science**

## **Informational Articles**



## Two Print Versions Available:

- Full Page Informational Article on STEM Career + Separate 1/2 Page of Questions about Career
- Informational Article & Questions on the Same Page



# Careers in Science Informational Articles

# SPELEOLOGIST

Speleologists study caves and their ecosystems.

Speleology: Scientific study of caves and other karst features. A speleologist may design or redesign cave systems (like tourist attractions), repair damaged natural caves, or work in locating caves. Some speleologists also examine potential sources of minerals or fossil fuels. There are many aspects to studying caves: One could study how they formed, the zoological species that live in them, how stalagmites and stalactites form, the process of water within them, and even search for fossils and animals that live in cave systems. Scientists could even study the native plants and animals.

Speleology is a specialized type of science, it is rare to find it. Geoscience, the study of the earth, includes speleology. If you are interested in geology, you should focus on taking geology, biology, anthropology, and history, too.



Name: \_\_\_\_\_ Careers in Science: Speleologists

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3. If you wanted to go into this field of science, what topic would you need to study?  
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4. What do you think a typical day would look like for a person working in this field?  
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5. If you were hiring someone for this career, what two questions would you ask?  
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## ARCHAEOLOGIST

Archaeologists study past human activity by excavating, dating, and analyzing physical remains.

Archaeologists might study the million-year-old fossils in New York City. No matter where they are, archaeologists work to analyze the physical remains of the past: human culture. Within archaeology, there are specializations like bioarchaeology (the study of animals), paleoanthropology (the study of ancient humans), paleobotany (the study of ancient plants), and lithics (the study of stone tools). Archaeologists also study the physical remains of past sites, which can be any place there are physical remains of past sites.



## ASTRONOMER

Astronomers study planets, stars, and other celestial bodies. Astronomers focus on the study of space, which includes the stars, planets, and galaxies above us. They can study how stars change over time, how the sun and our solar system were formed, and what will happen to them over time. Astronomy is the study of the universe, but yet you can't touch what is being studied. Because of this, astronomers use scientific tools: telescopes, spectrographs, cameras, space probes, and computers. Astronomers spend a majority of their time researching and observing the universe that would be considered scientific observations.



## PHARMACOLOGIST

Pharmacologists are medical scientists who work to develop new medications. A pharmacologist studies how medicine works. Sometimes, people think pharmacologists and pharmacists are the same. Pharmacists are health care providers who dispense medications. Pharmacologists are scientists who study the effects of drugs on the body. They work to develop new medicines to ensure safety and effectiveness. Pharmacologists work in various settings, including hospitals, research laboratories, and pharmaceutical companies. They often work with other scientists, such as chemists and biologists, to develop new medicines. Pharmacologists also work to improve existing medicines and to develop new ways to deliver medicines to the body.

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A speleologist may design or redesign cave systems (like tourist attractions), repair damaged natural caves, or work in locating caves. Some speleologists also examine caves to see if they have potential sources of minerals or fossil fuels. There are many different types of caves, and each type has its own unique ecosystem. Speleologists study the geology, biology, and chemistry of caves. They also study the history of caves and the people who have lived in them. Speleologists work in a variety of settings, including caves, museums, and research laboratories. They often work with other scientists, such as geologists, biologists, and chemists, to study caves and their ecosystems.

## NEUROSCIENTIST

Neuroscientists are scientists who focus on the study of the nervous system.

A neuroscientist studies the brain and its impact on behavior. There are many branches of neuroscience, and neuroscientists can cover several branches at the same time. For example, if a neuroscientist works as a neurosurgeon, they would perform surgery on the brain. If they work as a neurophysiologist, they would study the electrical activity of the brain. If they work as a neurochemist, they would study the chemicals in the brain. Neuroscientists work in a variety of settings, including hospitals, research laboratories, and universities. They often work with other scientists, such as psychologists, biologists, and chemists, to study the brain and its impact on behavior.



Neuroscientists try to discover new information about the brain and its impact on behavior. Sometimes they test theories, try to find ways to treat diseases that impact the brain and nervous system, or study mental health. Whatever they do, neuroscientists try to share their findings with other scientists and the public. In order to become a neuroscientist, you would need to earn a bachelor's degree in biology, psychology, or a related field. Then, you would go to school for a master's degree or a Ph.D. in neuroscience. You would also need to have research experience and strong communication skills.

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## MARINE BIOLOGIST

Marine biologists study the organisms and ecosystems in the ocean and other saltwater environments.

Marine biologists are scientists who study the plants and animals that live in the ocean. People who specialize in marine biology can focus on many different aspects of oceans and life in the ocean. They can study the ocean currents, how human behaviors impact the ocean, or even how ocean environments produce plants and animals that could be used as medicines. Marine biologists often split their time between the laboratory and actually working in the field, like an ocean, beach, or estuary. They'll take the data that's collected in the field to their laboratory to continue studying. As with most science careers, marine biology is an umbrella term and there are many specializations within this career, such as: marine botanist, marine zoologist, marine mammalogist, or a microbiologist.

In order to become a marine biologist, you'll need a degree in marine science, biology, ecology, oceanography, or zoology. A Ph.D. is needed in order to work in a research position. You'll also need strong research skills, be able to work well with a team, and be able to communicate your findings to the public. You would also need to be able to work in a lab setting and to be able to handle the pressure of a research career.



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A speleologist may design or redesign cave systems (like tourist attractions), repair damaged natural caves, or work in locating caves. Some speleologists also examine caves to see if they have potential sources of minerals or fossil fuels. There are many aspects to studying caves and how they are formed.

1. What do you think is the most important part of this career?
2. If you could speak to a speleologist, what three questions would you want to ask them?

# ARCHAEOLOGIST

Archaeologists study past human activity by excavating, dating, and analyzing physical remains.

Archaeologists might study the million year old fossils in the 20<sup>th</sup> century buildings in New York City. They are, in hopes of understanding human history, there are specializations like bioarchaeology (the study of human remains), zoo-archaeology (the study of animal remains), and lithics (the study of ancient tools). Archaeologists work at archaeological sites where physical remains of past human activity play a large role as prehistoric settlements. These sites are as large as prehistoric settlements. These sites are as large as prehistoric settlements. These sites are as large as prehistoric settlements.

1. What do you think is the most important part of this career?
2. If you could speak to an archaeologist, what three questions would you want to ask them?
3. If you wanted to go into this field of science, what topic would you need to study?
4. What do you think a typical day would look like for a person working in this field?
5. If you were hiring someone to work as an archaeologist, what two questions would you ask them?

# CLIMATOLOGIST



Climatologists study weather patterns over a period of time.

Climatologists are similar to meteorologists in that they study weather; however, climatologists focus on a much longer timescale and study trends over months, years, or even centuries. Climatologists will study and interpret data, maps, photographs, and charts to predict long and short scale patterns. They'll often use weather stations, satellites, or radar stations to look at things like cloud coverage, snow packs, and glacier sizes. Climatologists can also study oceans and volcanic eruptions since they can alter the climate. They'll also use computer models to help predict patterns and prepare forecasts, then will make scientific presentations based on their findings. Some scientists in this field will work with government agencies, nonprofit organizations, or even archaeology departments at major colleges and universities.

In order to become a climatologist, you'll want to earn a Bachelor's degree in climatology, meteorology, or atmospheric science. These focus heavily on math and physics, as well as agriculture, biology, and natural sciences. If you want to focus on research, you'll need to earn at least a Master's degree that focuses on climatology.

1. What do you think is the most important part of this career?
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