

Introduction: Sample Instructional Activities



Each of the activities are designed to introduce business leaders, scholars, and professionals participating in The Open Source Teaching Project.

Use the bookmarks tab to explore each career theme.

Explore our video library:

<http://www.opensourceteaching.org/videolibrary.html>

Anthropology, Biology

Listen to the complete interview of Barbara King

[Professor of Anthropology, The College of William and Mary](#)
[Class of 2007 Professor \(2004-2007\)](#)
[2002 Guggenheim Fellow](#)

Introduction Track: Keywords / Phrases

- Animals
- Career
- Observe
- National park
- Zoo
- Mentor
- Surveys
- www.primate.wisc.edu
- Primates
- Jane Goodall
- Frans de Waal
- Bernd Heinrich

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What advice does Professor King give related to pursuing a career that studies animals? What other careers relate to the study of animals?
- What information can you find related to the three scientists Professor King references? Why are these particular scientists important to her field of study?
- In the complete interview of Professor King, what does she use to describe what an anthropologist does? What types of skills are required? How could these skills be applied to a wide variety of professions or career interests?
- What specifically does Professor King study? What applications does her research have to understanding nature?

Listen to the complete interview: Marvin Malecha

[Dean, College of Design, North Carolina State University](#)
[President, American Institute of Architects \(2009\)](#)

Introduction Track: Keywords / Phrases

- Culture
- Creativity
- Design thought
- Leadership
- Thomas Edison

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Marvin Malecha talks about thinking, culture, and the design of buildings. Why do you think these ideas are important in architecture?
- What does Professor Malecha say about creativity, design thought, and leadership? How could you relate his comments to your own future career aspirations?
- What is design thought? What college and/or university programs in your state or region of the country can you find that focus on architecture and design?
- Professor Malecha mentions Thomas Edison. What is it about Thomas Edison's work that you think has application to the field of architecture and design?

Physics, Astronomy

Listen to the complete interview of Chris McKee

[Professor of Physics and Astronomy](#)
[Member, National Academy of Sciences](#)
[Chair of Physics Department \(2000-2004\)](#)
[UC Berkeley](#)

Introduction Track: Keywords / Phrases

- Solar wind
- Astronauts
- Tenuous
- Orders of Magnitude
- Density
- Star
- Supercomputers
- Astronomers
- Telescopes
- Observations
- Simulations

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What does Professor McKee say makes his work very exciting?
- What is solar wind and why is it important?
- What does Professor McKee say about orders of magnitude? What relationship does this concept have to star formation?
- How does Professor McKee collaborate with many types of specialist in his research? What specific examples does he provide?

Biology, Medicine, Pharmacology
Listen to the complete interview of Nobel Laureate Ferid Murad

[The University of Texas - Health Science Center at Houston](#)
[John S. Dunn Distinguished Chair, Physiology and Medicine](#)
[Director, Institute of Molecular Medicine](#)

Introduction Track: Keywords / Phrases

- Math
- Civics
- Medicine
- Clinical Pharmacology
- Case Western Reserve University

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Professor Murad identifies an early classroom activity that helped him think about careers. When did this activity occur and in which careers did he have an interest?
- What information are you able to find about clinical pharmacology? Use at least three reliable sources. How is it different then the profession of becoming a pharmacist? What are the differences in the kind and level of training?
- Professor Murad earned an M.D. and a Ph.D., how are these type of degrees different? What makes the M.D., Ph.D. program at Case Western Reserve University unique? What other MD / PhD programs are you able to find in your region of the country?
- What is the specific focus of Professor Murad's research and what ground breaking discovery did he make? What challenges did he face in convincing his professional peers that his discovery was important?
- What examples does Professor Murad describe as the focus of his future areas of research?

Biology, Medicine - Listen to the complete interview of Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology](#)

[The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research](#)

[Co-Leader, Infection & Host Defense Program](#)

[St. Jude Children's Research Hospital](#)

Track 1: Introduction

- Research Scientist
- Influenza
- St. Jude's Children's Research Hospital
- Memphis, TN
- University of Melbourne
- Australia
- Avian influenza viruses
- Dr. Robert Webster
- Viral Immunity
- Immunology

Sample Questions

- Search the web and find an article discussing flu vaccines or avian influenza. What new information did you review which can be used for understanding the larger context and the importance of scientists who study influenza?
- Professor Doherty directs research in laboratories on two continents. What do you think are the most important things he has to emphasize in order to make sure both labs continue to perform research at a very high level? What type of preparation and planning do you think takes place in order to keep both of these labs exploring important topics and producing important results?
- Identify at least two additional scientists, research labs, universities, or companies performing biological or medical research in the cities of Memphis, TN or Melbourne, Australia. What about the research areas you identified do you believe is of most relevance and importance to the general public?
- What do you think are the most rewarding things about being a research scientist? What other careers do you feel have similar types of rewards? Provide a couple of examples.

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology
The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research](#)

[Co-Leader, Infection & Host Defense Program](#)

[St. Jude Children's Research Hospital](#)

Track 2: Becoming interested in research

- Questions
- Evidence-based
- Aristotle, Archimedes
- Scholasticism, Dogma
- Analyze
- Experiment
- Observation
- Publish
- Search for the truth
- Results and Conclusions
- Broad scrutiny

Sample Questions

- Professor Doherty states that he is always asking the question “why?”. What interests you the most academically? What are some steps you can take to continue to develop this interest?
- Why is the phrase evidence-based important in the field of science? Provide a real world example of how the evidence-based foundation of science is important to things you might take for granted every day.
- What is Professor Doherty’s laymen’s definition for science? Do you agree or disagree with this definition? Provide some evidence to support your opinion.
- What is dogma? Why do you believe Professor Doherty use this phrase in providing a background or context for his description of the role of modern science and scientific research?
- Why do you think broad scrutiny is important to furthering the field of science? Provide a real world example of how you think “broad scrutiny” could potentially improve the amount of effort any individual puts into a particular task. What is the last thing you worked on or participated in which required broad scrutiny?

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology
The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research
Co-Leader, Infection & Host Defense Program
St. Jude Children's Research Hospital](#)

Track 3: Current Focus of Research

- cellular immune response
- cancer
- virus infected cells
- Killer T Cell
- virus particles
- infection
- molecular medicine
- molecular dna technology

Sample Questions

- Professor Doherty talks about cellular immune response. Search the web and find at least three sources that provide a description of this concept. Once you have found your sources, create a paragraph of how you would describe a cellular immune response to one of your friends. Feel free to be creative but still accurate in your explanation.
- Professor Doherty talks about a “Killer T Cell”. Why are Killer T Cells important in the body? See if you can find any other cells in the body which have nicknames and describe their function. Based on your own personal characteristics and qualities, what type of biological cell do you think you would be? What would be your role and function?
- Professor Doherty talks about advances in technology and implications for improving biology / medicine. Search the web and learn about a new advancement in medical technology or biomedical research occurring within the past 12 months. How did the development of this technology make an improvement in the field of medicine and/or biology?

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology
The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research
Co-Leader, Infection & Host Defense Program
St. Jude Children's Research Hospital](#)

Track 4: Implications of Research

- Infection
- Influenza
- Cellular immune processes
- Autoimmune Disease
- Vaccines
- AIDS
- Immunotherapy
- Cancer

Sample Questions

- Professor Doherty talks about “controlling infection” in the body. What does the professor mean when he talks about “controlling infection”? What examples does he use? Can you think of other examples which might be related to controlling infection?
- Professor Doherty talks about a spectrum. Why do you think he provides this example in his explanation?
- Professor Doherty talks about vaccines. Besides the examples he provides, what examples would you use to explain the overall importance of vaccines? Search the web and find at least three sources which talk about challenges faced in your country related to the production, administration, or research of vaccines.
- Professor Doherty talks about immunotherapy. What is immunotherapy? How would you explain the benefits of this type of therapy to one of your friends who might need it to treat a certain condition?

Biology Research

Listen to the complete interview: Sharon R. Long

[Professor of Biological Sciences, Stanford University](#)

[Dean, School of Humanities and Sciences, Stanford University \(2001-2007\)](#)

[Member, National Academy of Sciences](#)

[MacArthur Fellowship \(1992\)](#)

Introduction Track: Keywords / Phrases

- Legumes
- Fertilizer
- Bacteria
- Nitrogen
- Plants

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- In the complete interview of Professor Long she describes the importance of legumes to her research. What are legumes? Why are they important to Professor Long's research?
- Why are legumes able to exist without nitrogen fertilizer? Why is nitrogen fertilizer important for the growth of other plants?
- Why is the ability of legumes to capture nitrogen from the air an important characteristic?

Business, Auto Industry

Listen to the complete interview: Julie Corcoran

[Director of Human Resources at Nissan North America \(Smyrna, TN and Deckard, TN\)](#)

Introduction Track: Keywords/Phrases

- Human Resources
- Business Strategy
- Employee Safety
- Manufacturing
- Internal Communications
- Writing
- Onsite Banks
- Change
- Improvement
- New Labor Market

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What is the scope of Julie Corcoran's responsibilities at Nissan North America? Why is her role important? How does it support a primary function of the Nissan North America's work?
- What essential skills are identified by Julie Corcoran as important for all employees? Provide examples of why these skills are important?
- Julie Corcoran provides several examples of how Nissan continually focuses on improving quality. Summarize the examples she provides that occur daily.
- Why does Julie Corcoran advise students to be prepared for change? What recent examples can you provide from the news which emphasize this point?
- What advice does Julie Corcoran provide related to finding a career pathway?
- What does Julie Corcoran mean when she uses the phrase "communicate with impact"? Why is this skill important?

Business, Economic Development
Listen to the complete interview: Ralph Schulz

[President & CEO, Metro Area Nashville Chamber of Commerce](#)

Keywords / Phrases from the Introduction Track

- Objective information
- Research
- Nashville
- Denver
- Community Leaders
- Priorities
- Economic Development

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What does Ralph Schulz describe as an important function of the chamber of commerce? Research the work of your own local chamber of commerce. Describe the most recent project of the chamber which has gained local or regional press?
- What is economic development and why is important to local communities? What role does the chamber play in assisting your local area or region with economic development?
- What other organizations does the chamber collaborate with in order to achieve its goals? Why is this type of collaboration necessary and important to the local community? What are some specific projects resulting from such collaboration?

Business, Retail
Listen to the complete interview of Mark Ezell

President, Purity Dairies

Introduction Track: Keywords / Phrases

- Consumers
- Dairy
- Evaluations
- Training
- Communications

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What does Mark Ezell describe as the key to Purity Dairies success?
- What role do consumers play in the need for organizations to improve? What are the different type of ways an organization can measure customer satisfaction?
- In the complete interview of Mark Ezell he talks about the acquisition of Purity Dairies by Dean Foods. How does Mr. Ezell describe the benefit of this acquisition? Why was it necessary?
- Purity Dairies is a division of Dean Foods. What are the major brands of Dean Foods?
- Where does Dean Foods rank in relationship to other competitors in the dairy market? Who are its major competitors?

College Admissions

Listen to the complete interview of Richard Shaw

[Dean of Admissions and Financial Aid, Stanford University](#)

Introduction Track: Keywords / Phrases

- Neighborhood
- Financial aid
- 3,000 schools and colleges
- homework
- influencers
- opportunities
- comfort zone
- college degree
- empowered
- life income
- access

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Why does Dean Shaw encourage students to look beyond their neighborhood?
- Dean Shaw talks about influencers in your life. Who and/or what are the primary positive influencers in your life? What are you doing now to make sure you gain the most from these positive influencers?
- Dean Shaw references that there are over 3,000 schools and colleges. Identify at least five colleges that you have an interest in attending. What is it about these institutions that you find interesting? What questions do you have related to both academics and student life on-campus at these institutions? What steps can you take to find out the answers to some of your questions?

College Admissions, Financial Aid

Listen to the complete interview of Sally Donahue

[Director of Financial Aid, Senior Admissions Officer, Harvard College](#)

Introduction Track: Keywords / Phrases

- Low income
- Middle income
- Family Income
- 60,000
- Financial Aid
- Focus group
- Need-blind admissions
- Cost of attendance
- Admissions
- Net price
- Need-based grant
- Financial Aid Initiative
- Need-based scholarships

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Perform research on [Harvard's Financial Aid initiative](#). What are important elements of the initiative. How you would explain this initiative to one of your friends in less than 50 words?
- Perform research on need-blind admissions. What institutions of higher education in your local area implement this practice? Why do you think colleges and universities would choose to implement a need-blind admissions policy? What could be the potential benefits of a need blind admissions policy?
- What is the difference between tuition and the cost of attendance? Perform research on at least 3 institutions of higher education that you have an interest in attending. What is the difference between tuition and the cost of attendance at the institutions you selected?
- Perform research on need-based scholarships at 3 institutions of higher education that you are interested in attending.

[Learn more about Harvard's Financial Aid Initiative](#)

College, Higher Education, Non-Profit Executive **Listen to the complete interview: Charlie Nelms, Ed.D.**

[Chancellor, North Carolina Central University](#)

Introduction Track: Keywords/Phrases

- College
- Open admissions
- First generation college students
- Rigorous course of study
- Preparation
- Chancellor
- Rolling admissions
- Financial aid offers
- North Carolina Central University

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Describe the community and times in which Charlie Nelms grew up.
- What advice does Charlie Nelms provide to students (beginning as early as 5th grade) about pursuing a college degree and exploring post-secondary opportunities?
- What are the attributes of the most successful college students, according to Charlie Nelms?
- What advice does Charlie Nelms provide about finding the post-secondary institution that is right for students? Describe each of the specific recommendations he provides?
- What insights does Charlie Nelms provide about working while pursuing a college degree? What did his research find about the impact of work on the successful completion of college?
- What does Charlie Nelms mean when he says, “College is not a destination”?
- Describe Charlie Nelms’ career pathways towards becoming the Chancellor of North Carolina Central University? What important steps did he take along the way?

- What is open admissions and how does it relate to Charlie Nelms' experience at the City University of New York?
- What is a land grant institution and how does it relate to Charlie Nelms' family and background in education?
- Which mentor played a significant role in Charlie Nelms' decision to pursue leadership in higher education? Why do you believe he provided the advice that he gave to Charlie Nelms?
- What does Charlie Nelms mean when he says, "Students need to be prepared"? What advice does he provide about getting prepared before entering college?
- What advice does Charlie Nelms provide about interpreting and following up on financial aid offers?

Communications, Public Affairs, Government

Listen to the complete interview: Alexia Poe

[Managing Director, Tennessee Office, Peritus](#)

[Director of Public Affairs, Gaylord Entertainment](#)

[Communications Director, Office of United States Senator](#)

[Deputy Press Secretary, Office of the First Lady, United States](#)

[Press Secretary, Governor, State of Tennessee](#)

Introduction Track: Keywords/Phrases

- Writing
- Communications
- Gaylord Entertainment
- News Reporter
- TV Anchor
- Convention Center
- Strategy
- Community Outreach
- Integrity
- Trust

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- How does Alexia Poe describe the scope of her role at Gaylord Entertainment?
- What is the scale of Gaylord Entertainment's businesses and services?
- What qualities are essential for success, as described by Alexia Poe? Why does she believe these skills are important?
- What success does Alexia Poe describe related to the future expansion of Gaylord Entertainment?
- What advice does Alexia Poe provide to students interested in a career in communications?

Community Service, Entrepreneur, Artist, Curator

Listen to the complete interview: Randall John

[Founder & Curator, Skate this Art](#)

Introduction Track: Keywords/Phrases

- Informal Training
- Community Art Studio
- Skateboard Art
- Non-profit
- Homeless Youth

All sample questions are designed in order to apply Internet search as a basis for exploring and discovering new information.

Sample Questions

- Randall John claims to be a “self-taught” artist, yet he did receive inspiration and guidance from a number of different places. Where did he receive this training? Was the training formal, informal, or both?
- Randall John gives a portion of the proceeds from every one of his art shows to non-profit organizations. Research *Roaddawgz*, the non-profit benefiting from the “Skate this Art” show, and list three bullet points that summarize *Roaddawgz*’ mission. Are there any non-profit organizations in your area that encourage students to find their artistic talents?
- Randall John is interested in Asian Art, especially after his trip to India. Research art styles from three different countries. Which do you like the best?
- Look up three large and well-known museums. Research who the curator(s) is at each museum. How did each individual become a curator? What do their jobs entail?

Engineering

Listen to the complete interview of Adrian Bejan, Ph.D.

[Distinguished Professor of Mechanical Engineering](#)
[Pratt School of Engineering](#)
[Duke University](#)

Introduction Track: Keywords/Phrases

- Physicists
- Engineering
- Configuration
- Renaissance
- Michelangelo
- Equation
- Essay
- Coincidental
- Image

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Dr. Bejan says engineers explain how nature gets better. What do you think engineers do? Do you agree with Dr. Bejan? Remember to explain your position.
- Why is a word's history important? Find the word for the study of words' histories. What can the history of a word tell you about its meaning and applications?
- Dr. Bejan asserts that without drawing, there is no science. Explain that statement, then agree or disagree.
- Are images or words more important in communication? Explain your position, with through words or images.
- According to this segment of Dr. Bejan's interview, what skills do you believe an engineer must possess before she/he even starts on an educational path?

Engineering, Mathematics

Listen to the complete interview of Robert Calderbank

[Professor of Electrical Engineering and Applied Computational Mathematics](#)
[Department of Electrical Engineering](#)
[Princeton University](#)

[Former Vice President of Research](#)
[AT & T Bell Labs](#)

Introduction Track: Keywords / Phrases

- Engineering
- Mathematics
- Princeton University
- AT & T
- Bell Labs
- Hi-speed modems
- Signal processing patents
- Cite
- Academia
- Laptop

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Professor Calderbank used to run the research laboratory at AT & T Bell Labs (Bell Laboratories). What information are you able to find of the importance of Bell Labs? Describe at least three significant research discoveries which occurred at this laboratory over its many years of existence.
- What does Professor Calderbank say about hi-speed modems and the modern day application of this technology? What additional information are you able to find on the web about hi-speed modems. Provide at least three reliable sources.
- Professor Calderbank is responsible for a host of patents related to signal processing. What information are you able to find about signal processing and how they relate to computers? Provide at least three reliable sources.
- What is a patent? Why is it important to furthering innovation?

Global Health, Medicine

Listen to the complete interview: Steven Larson, M.D.

[Assistant Dean for Global Health, UPenn School of Medicine](#)

Keywords / Phrases from the Introduction Track

- Health Centers
- Education
- Service
- Research
- Tripartite
- Puentes de Salud
- Robert Wood Johnson Foundation

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What is the tri-partite mission described by Steven Larson and why is it important?
- How does Steven Larson view his role as the Assistant Dean for Global Health?
- Why is hard data important to influence change?
- Describe the main purpose of the organization Puentes de Salud. What are some of the programs major accomplishments?
- What is the role of the Robert Wood Johnson Scholars program in facilitating change?

Community Service, Globalization

Listen to the complete interview of Kavita Ramdas

[President & CEO, Global Fund for Women](#)
[2007 Social Capitalist Award Winner](#)

Introduction Track: Keywords / Phrases

- Economic & environmental justice
- Credit
- Safe working conditions
- Environmental sustainability
- Clean water
- Pesticide use

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- In the complete interview, Kavita Ramdas mentions the different areas of focus of the Global Fund for Women. What are the different areas? Which of these areas do you find most interesting and why?
- Kavita Ramdas talks about access to credit. Perform research on the topic of microfinance, Grameen Bank, and its founder Muhammad Yunus. How do you think the concept of microfinance could work in your own local community? What lessons could you learn from its application in other parts of the world?
- Many of the products we use are made in other countries. Research and summarize three current event articles which talk about working conditions. What new information did you learn from these articles?
- Are there any particular industries you think might be most vulnerable to working condition violations (environmental, economic, social, other)? Support your opinion with at least three reliable sources or references.

Politics, Globalization, Food Markets
Listen to the complete interview of Michael Watts, Ph.D.

[Professor of Geography](#)
[University of California, Berkeley](#)

Introduction Track: Keywords/Phrases

- Food crises
- Famines
- Food scarcity
- Millennia
- Local knowledge
- Planting strategy
- Food markets
- Food systems

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Distinguish food crises, famines, and food scarcities.
- Dr. Watts asserts these human disasters occur because of problems in the food markets. What sorts of problems are these?
- What are you able to learn about the food market of the United States? Do you see any evidence that the U.S. food market and system could break down?
- Michael Watts talks about “local knowledge”. What do you have “local knowledge” of? Is this knowledge any more or less valuable than your studies at school? Explain your answer.

Government, Politics

Listen to the complete interview of Karl Dean

[Mayor of Nashville, Tennessee.](#)

Introduction Track: Keywords/Phrases

- Public service
- Public defender
- Government leadership
- Job - related benefits

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- How is the public sector different from the private sector? Mayor Dean gives a specific example – what are other differences?
- Why would an election possibly affect the hiring of public sector employees?
- What characteristics in a person would drive him/her to choose public service?
- If someone wants to go to law school, where does that study come in the school timeline? What does someone need to do in order to apply, be accepted, and attend law school?
- What do you think about Mayor Dean's advice to be willing to accept tough times and lean years to follow a goal of full time public service? Would that course of action be one you would like to pursue? Be sure to explain your thoughts.

Health, Family Medicine

Listen to the complete interview of Carolyn Cannuscio, ScD

[Assistant Professor of Family Medicine and Community Health
Hospital of the University of Pennsylvania](#)

Introduction Track: Keywords/Phrases

- Undergraduates
- Masters' students
- Interdisciplinary program
- Epidemiology
- Population health

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Why would community health study and work be important for all of us? What kinds of work and results might come out of such work? Find specific examples in your research.
- Dr. Cannuscio holds a ScD. What kind of degree is that, and what sort of educational path did she travel to attain that degree?
- What aspects of epidemiology appeal to you? Explain.
- What is more important, research or teaching? Why might a professor want to do both simultaneously?

Public Health, Medicine, Poverty
Listen to the complete interview: Mariana Chilton

[Assistant Professor, Health Management & Policy](#)
[Drexel University, School of Public Health](#)

Keywords / Phrases from the Introduction Track

- Food insecurity
- Nutrition
- Micronutrients
- Health
- Safety Net
- Growth Curve
- Congress
- Food Stamps
- Farm Bill Reauthorization

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What is food insecurity? How can Mariana Chilton's research on food insecurity be used to help others?
- What is a growth curve? Why is understanding a growth curve important for those who study public health?
- What does Mariana Chilton say about the relationship between food stamp programs and farm subsidies? Find a recent news article on the food stamp program or farm subsidies and relate it to her comments.
- In the interview, Mariana Chilton describes some challenges to her research. Summarize these challenges.

Insurance, Financial Services

Listen to the complete interview: Charles Sueing

[Owner, The Sueing Agency, Nationwide Insurance](#)

Introduction Track: Keywords/Phrases

- Insurance / Insurance Claims
- Financial Services
- Nashville
- Middle Tennessee
- Small Businesses
- Morehouse College
- Mentor
- Net vs. Gross Income
- Customer service
- Honesty, Integrity
- Confidential
- Accountability
- “On Your Side” certification
- Sole Proprietor

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- How does Charles Sueing make sure to keep current on changes in the insurance industry?
- What are some of the challenges associated with small business ownership?
- What is the analogy used by Charles Sueing to compare the importance of large vs. small insurance accounts? What is the main point that he is trying to make?
- In addition to education, what does Charles Sueing emphasize about the importance of a mentor?
- What is Charles Sueing’s philosophy about effectively managing people and providing superior customer service? What are the qualities and characteristics that he identifies as important to achieving this goal?
- What is “On Your Side” certification and why is it important from the perspective both the business and the customer?

- What examples does Charles Sueing provide of some of his daily responsibilities?
- What are some of Charles Sueing's goals in regards to exceeding customer expectations?
- What advice does Charles Sueing have for students in regards to pursuing a career?

Government, Politics, International Affairs

Listen to the complete interview of Ambassador Ahmad Kamal

[Senior Fellow, The United Nations](#)

Introduction Track: Keywords/Phrases

- Multilateral
- Ambassador
- Objective
- Coincidence
- Negotiations
- Consensus
- Common denominator
- Essence
- Sincere
- Reliable

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What do you think it means to be a diplomat? Were you surprised at Ambassador Kamal's description of the United Nations community?
- Why are the qualities he mentions so important to successful diplomacy?
- How can you apply those qualities and skills in your daily life?
- Would the atmosphere and goals of the United Nations be exciting to you? Find out what other positions are necessary to its success besides ambassador.

Government, Politics, International Affairs, Diplomacy

Listen to the complete interview of Elizabeth Lindenmayer

[Former Deputy Chief of Cabinet for Secretary General Kofi Annan, The United Nations](#)

Introduction Track: Keywords/Phrases

- Peacekeeping
- War of Indochina
- Refugee
- Secretary General of the United Nations

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- How did Lindenmayer's past prepare her future?
- Are there decisions you can make now to help your past (the present at this moment) prepare your future?
- She discusses peace keeping. How is a peace keeper different from a soldier?
- What does it mean to be someone's right hand?

Listen to the complete interview: Pat Stith

[Investigative Reporter, The News & Observer
Pulitzer Prize \(1996\)](#)

Introduction Track: Keywords / Phrases

- Theory
- Conjure
- Investigative Reporting
- Colleagues

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What comparisons does Pat Stith make between investigative reporting and hunting? Can you think of other similarities not mentioned?
- What is a theory and how can it relate to reporting?
- Find an investigative reporting article. What are the different types of sources used in the article?

Language Arts, Poetry, Poems
Listen to the complete interview of Edward Hirsch

[President, John Simon Memorial Guggenheim Foundation](#)
[MacArthur Fellow \(1998-2003\), Guggenheim Fellow \(1985-1986\)](#)

Introduction Track: Keywords / Phrases

- Freshman
- Grinnell College
- Poetry
- Poems
- John Donne
- Poesis

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What examples does Edward Hirsch use to describe his pathway to becoming a poet?
- Why is the word poesis important and how does Edward Hirsch relate it to his passion for poetry?
- Are you able to find example of poetry in the music that you listen to everyday? Take one of your favorite songs, that you feel contains poetry and explain why this song his relevance and meaning to you?

Law, Immigration

Listen to the complete interview of Sarah Paoletti, J.D.

[Clinical Supervisor and Lecturer, Transnational Legal Clinic
University of Pennsylvania Law School.](#)

Introduction Track: Keywords/Phrases

- Transnational law
- Persecution
- Asylum
- Liberian Truth and Reconciliation Commission
- Undocumented laborers

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Dr. Paoletti's work provides a venue for law students to learn by actually practicing law under her supervision. What are other ways a student can "learn by doing" in the legal field? Are you surprised that all law students do not have this experience? Do you think it makes someone a better lawyer?
- What sorts of issues might someone working in immigration rights address?
- Research the Liberian Truth and Reconciliation Commission. How did it come about, and what sorts of civil problems has Liberia faced? What is its current state and outlook?
- What are the International Human Rights Norms? Who might benefit from them in the United States?
- What are the transnational issues in your area that a similar legal clinic might address? Is there a population or multiple populations that would benefit from such aid?
- Does this area of legal work appeal to you? Explain your rationale.

Law , Sports

Listen to the complete interview of Elsa Cole

[General Counsel, National Collegiate Athletic Association \(NCAA\)](#)

Introduction Track: Keywords / Phrases

- Title IX
- jurisdiction
- gender equity
- constitution
- sports

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What is Title IX and why is it important?
- Find 2 to 3 current events articles which reference Title IX and make a connection to how these articles relate and/or apply to events in your own local community?
- When Elsa Cole references gender equity and “our constitution”, to what is she referring? What role do issues of equity play in sports?

Medicine, Biology

Listen to the complete interview of Jeffrey Bluestone

[Director UCSF Diabetes Center and the Immune Tolerance Network](#)
[Distinguished Professor of Medicine, Pathology, Microbiology, and Immunology](#)
[University of California, San Francisco](#)

Introduction Track: Keywords/Phrases

- Immune system
- Allude
- Generate
- Insights
- Myriad
- Bacteria
- Viruses
- Parasites
- Robust
- Influenza
- Distinguish
- Auto immune system
- Mechanisms
- Defect
- Genetic predispositions
- mutation

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Dr. Bluestone says that most of us are “pretty healthy.” What role does the immune system play in that health, and why does he say the system is amazing?
- Dr. Bluestone gives several examples of auto-immune disorders. Choose one and then research to find another that he does not mention. What are the symptoms, consequences, and treatments for each of the disorders you choose?
- Give an example of a genetic mutation.
- What would appeal to you about doing work like Dr. Bluestone? What are steps you can take now to get on a career path such as his?

Medicine, Biology

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology](#)

[The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research](#)

[Co-Leader, Infection & Host Defense Program](#)

[St. Jude Children's Research Hospital](#)

Track 1: Introduction

- Research Scientist
- Influenza
- St. Jude's Children's Research Hospital
- Memphis, TN
- University of Melbourne
- Australia
- Avian influenza viruses
- Dr. Robert Webster
- Viral Immunity
- Immunology

Sample Questions

- Search the web and find an article discussing flu vaccines or avian influenza. What new information did you review which can be used for understanding the larger context and the importance of scientists who study influenza?
- Professor Doherty directs research in laboratories on two continents. What do you think are the most important things he has to emphasize in order to make sure both labs continue to perform research at a very high level? What type of preparation and planning do you think takes place in order to keep both of these labs exploring important topics and producing important results?
- Identify at least two additional scientists, research labs, universities, or companies performing biological or medical research in the cities of Memphis, TN or Melbourne, Australia. What about the research areas you identified do you believe is of most relevance and importance to the general public?
- What do you think are the most rewarding things about being a research scientist? What other careers do you feel have similar types of rewards? Provide a couple of examples.

Medicine, Biology

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology](#)

[The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research](#)

[Co-Leader, Infection & Host Defense Program](#)

[St. Jude Children's Research Hospital](#)

Track 2: Becoming interested in research

- Questions
- Evidence-based
- Aristotle, Archimedes
- Scholasticism, Dogma
- Analyze, Experiment, Observation
- Publish
- Search for the truth
- Results and Conclusions
- Broad scrutiny

Sample Questions

- Professor Doherty states that he is always asking the question “why?”. What interests you the most academically? What are some steps you can take to continue to develop this interest?
- Why is the phrase evidence-based important in the field of science? Provide a real world example of how the evidence-based foundation of science is important to things you might take for granted every day.
- What is Professor Doherty’s laymen’s definition for science? Do you agree or disagree with this definition? Provide some evidence to support your opinion.
- What is dogma? Why do you believe Professor Doherty use this phrase in providing a background or context for his description of the role of modern science and scientific research?
- Why do you think broad scrutiny is important to furthering the field of science? Provide a real world example of how you think “broad scrutiny” could potentially improve the amount of effort any individual puts into a particular task. What is the last thing you worked on or participated in which required broad scrutiny?

Medicine, Biology

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology](#)

[The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research](#)

[Co-Leader, Infection & Host Defense Program](#)

[St. Jude Children's Research Hospital](#)

Track 3: Current Focus of Research

- cellular immune response
- cancer
- virus infected cells
- Killer T Cell
- virus particles
- infection
- molecular medicine
- molecular dna technology

Sample Questions

- Professor Doherty talks about cellular immune response. Search the web and find at least three sources that provide a description of this concept. Once you have found your sources, create a paragraph of how you would describe a cellular immune response to one of your friends. Feel free to be creative but still accurate in your explanation.
- Professor Doherty talks about a “Killer T Cell”. Why are Killer T Cells important in the body? See if you can find any other cells in the body which have nicknames and describe their function. Based on your own personal characteristics and qualities, what type of biological cell do you think you would be? What would be your role and function?
- Professor Doherty talks about advances in technology and implications for improving biology / medicine. Search the web and learn about a new advancement in medical technology or biomedical research occurring within the past 12 months. How did the development of this technology make an improvement in the field of medicine and/or biology?

Medicine, Biology

Listen to the complete interview: Peter Doherty

[Laureate Professor, Department of Microbiology and Immunology](#)

[The University of Melbourne](#)

[Michael F. Tamer Chair of Biomedical Research](#)

[Co-Leader, Infection & Host Defense Program](#)

[St. Jude Children's Research Hospital](#)

Track 4: Implications of Research

- Infection
- Influenza
- Cellular immune processes
- Autoimmune Disease
- Vaccines
- AIDS
- Immunotherapy
- Cancer

Sample Questions

- Professor Doherty talks about “controlling infection” in the body. What does the professor mean when he talks about “controlling infection”? What examples does he use? Can you think of other examples which might be related to controlling infection?
- Professor Doherty talks about a spectrum. Why do you think he provides this example in his explanation?
- Professor Doherty talks about vaccines. Besides the examples he provides, what examples would you use to explain the overall importance of vaccines? Search the web and find at least three sources which talk about challenges faced in your country related to the production, administration, or research of vaccines.
- Professor Doherty talks about immunotherapy. What is immunotherapy? How would you explain the benefits of this type of therapy to one of your friends who might need it to treat a certain condition?

Medicine, Family Health - Listen to the complete interview of Carolyn Cannuscio, ScD

[Assistant Professor of Family Medicine and Community Health
Hospital of the University of Pennsylvania](#)

Introduction Track: Keywords/Phrases

- Undergraduates
- Masters' students
- Interdisciplinary program
- Epidemiology
- Population health

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Why would community health study and work be important for all of us? What kinds of work and results might come out of such work? Find specific examples in your research.
- Dr. Cannuscio holds a ScD. What kind of degree is that, and what sort of educational path did she travel to attain that degree?
- What aspects of epidemiology appeal to you? Explain.
- What is more important, research or teaching? Why might a professor want to do both simultaneously?

Medicine, Executive Leadership
Listen to the complete interview: Kevin Churchwell

[CEO, Monroe Carroll, Jr. Children's Hospital at Vanderbilt](#)

Keywords / Phrases from the Introduction Track

- Medical School
- Residency
- Boston
- Cambridge
- Patients
- College
- Fellowships
- Physician

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What is a residency in medical school? What are the different areas in which a student can pursue a residency?
- What criteria are used to determine the top residency programs? What type of sources can you find on the web related to exploring residency programs?
- What advice did Kevin Churchwell's brother provide to him? How did Dr. Churchwell interpret and apply this advice?
- Describe the kinds of fellowships available in your area, region, or state related to math, science, or medical school?

Nursing, Medicine

Listen to the complete interview of Colleen Conway-Welch

[Dean, Vanderbilt School of Nursing](#)

Introduction Track: Keywords/Phrases

- Modern nursing
- Laser surgery
- Non-invasive surgery
- Nursing specialties
- Orthopedic
- Geriatric
- Labor and delivery
- Administrator

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Dean Welch tells us about one stereotype, or idea, that people have of nursing – that it involves lots of blood. What do you think a nurse does and sees in his/her job? Were you surprised at what Dean Welch's information?
- Dean Welch mentions many nursing specialty areas. Choose two that interest you the most and find out what they do and what, if any, additional schooling or job experience you need to start practicing in that field.
- Dean Welch now is an administrator. Does that field interest you? Does it seem typical of a nursing career? Explain your thoughts.
- Are you more or less interested in investigating nursing after hearing Dean Welch discuss her career and the opportunities she sees?

Physics, Astronomy - Listen to the complete interview of Chris McKee

[Professor of Physics and Astronomy](#)
[Member, National Academy of Sciences](#)
[Chair of Physics Department \(2000-2004\)](#)
[UC Berkeley](#)

Introduction Track: Keywords / Phrases

- Solar wind
- Astronauts
- Tenuous
- Orders of Magnitude
- Density
- Star
- Supercomputers
- Astronomers
- Telescopes
- Observations
- Simulations

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- What does Professor McKee say makes his work very exciting?
- What is solar wind and why is it important?
- What does Professor McKee say about orders of magnitude? What relationship does this concept have to star formation?
- How does Professor McKee collaborate with many types of specialist in his research? What specific examples does he provide?

Physics

Listen to the complete interview of Douglas Osheroff

[J.G. Jackson and C.J. Wood Professorship in Physics](#)

[Professor of Physics and Applied Physics](#)

[Stanford University](#)

Introduction Track: Keywords / Phrases

- Astrophysics
- Low-temperature lab
- Superfluids
- Helium 4, Helium 3
- Transition Temperature
- Absolute zero
- Viscosity
- Quantum mechanics
- Macroscopic
- Heat capacity
- Thermal conductivity
- Isotope
- Tritium

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Professor Osheroff describes superfluids as “pretty amazing things”. What makes these type of fluids different from normal fluids?
- Professor Osheroff talks about work in a low-temperature lab. What information are you able to find about the type of research which goes on in low-temperature labs?
- Professor Osheroff provides an example of how sometimes even world leading scientist do not fully appreciate the substantial implications of their discoveries. What specific example does he provide?
- Why is an understanding of transition temperatures important? How can a knowledge of transition temperatures be used to inform scientific study?
- What is an isotope? Why is an understanding of isotopes important in Physics?

Public Service, Non-Profit Sector

Listen to the complete interview: Agenia Clark

[President & CEO, Girl Scouts of Middle Tennessee](#)
[Tennessee Board of Regents, 7th Congressional District \(2004-2010\)](#)

Introduction Track: Keywords/Phrases

- Leadership
- Mentors
- Harvard Business Review
- Mission
- Time Management
- Girl Scout University
- Team Projects
- Style of Leadership
- Fiscal Year
- Operating Budget
- Strategic Plan
- Project LEAD
- Masters of Business Administration

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- How does Agenia Clark describe the scope of her role at the Girl Scouts of Middle Tennessee?
- What is Girl Scout University? How is it designed to benefit both parents and students? What is Project Lead? How is it designed to help students?
- What does Agenia Clark emphasize about the importance of team projects?
- What does Agenia Clark identify about the most important skills that she uses everyday?
- Who does Agenia Clark work with in strategic planning? What is strategic planning and why is it important?
- What does Agenia Clark emphasize about the importance of conversations between employees and supervisors?

Sports, Economics

Listen to the complete interview of Roger Noll

[Senior Fellow, Stanford Institute of Economic Policy](#)

[Professor Emeritus of Economics](#)

[Stanford University](#)

Former Senior Economist, President's Council of Economics Advisers

Introduction Track: Keywords / Phrases

- Sports
- The Economics of Sports
- Antitrust policy
- Broadcasting
- Labor policy
- Players Association
- Economics
- Major League Sports
- Brookings Institution

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Most people don't associate professional sports with rigorous academic research. How did Professor Noll's interests and expertise in economics allow him to make the connection?
- Professor Noll mentions antitrust policy, broadcasting policy, and labor policy. Based on the information contained in the complete interview, why are these concepts important to the business of sports?
- Professor Noll wrote the first book on the economics of sports, published by the Brookings Institution. Perform an internet search and see if you are able to find the title of this book. When was it originally published?
- What role do players associations play in professional sports? Why are they important? Find three current event articles which mention players associations. Is there a common theme which connects the importance of their organizational role within the articles you were able to find?

Internet, Entrepreneur, Online Publishing, Small Business

Listen to the complete interview: Bob Young

[Founder & CEO, Lulu.com](#)

Introduction Track: Keywords/Phrases

- Online publishing
- Red Hat, Inc.
- Open source
- Publishers
- Authors
- Entrepreneur
- Canadian Football League
- Hamilton, Ontario
- Customers

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Why did Bob Young get into the online publishing business? What is his general philosophy that led to the founding of Lulu.com
- How is the business model associated with Lulu.com different then that of a traditional publisher?
- How is the term “book” defined within Bob Young’s online publishing model?
- What advice does Bob Young have for individuals interested in running an internet-based business?
- How did Bob Young get started as an entrepreneur? How did his general pathway in entrepreneurship evolve?
- Why advice does Bob Young provide about focusing on the needs of the customer? What does he warn as a potential shortcoming of entrepreneurs focused only on their idea and not the customer?
- How does Bob Young describe the difference between the academic world and the business world and how does it apply to students today?

Technology, Sociology, History

Listen to the complete interview: Susan Lindee

[Professor of History and Sociology of Science](#)
[University of Pennsylvania](#)

Introduction Track: Keywords / Phrases

- Technical systems & networks
- Information technology
- Healthcare
- Transportation
- Exploration
- Political power
- Social justice
- Identity psychology
- Emotions
- Normative
- Manifest

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Is technology, science, and technical knowledge always good? What does Professor Lindee state about this topic?
- How would you summarize the focus of Professor Lindee's research? What real-world examples would you provide in explaining the importance of this research to one of your friends?
- What are some examples of technology that you take for granted? How would your daily existence change if some of these examples did not exist? What would you need to do differently on a daily basis?

Listen to the complete interview: Susan Lindee

[Professor of History and Sociology of Science](#)
[University of Pennsylvania](#)

Introduction Track: Keywords / Phrases

- Technical systems & networks
- Information technology
- Healthcare
- Transportation
- Exploration
- Political power
- Social justice
- Identity psychology
- Emotions
- Normative
- Manifest

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Is technology, science, and technical knowledge always good? What does Professor Lindee state about this topic?
- How would you summarize the focus of Professor Lindee's research? What real-world examples would you provide in explaining the importance of this research to one of your friends?
- What are some examples of technology that you take for granted? How would your daily existence change if some of these examples did not exist? What would you need to do differently on a daily basis?

Information Technology

Listen to the complete interview of Lora Stevenson-Obrahta

[Vice President, Corporate Development](#)

[Dolphini Networks](#)

Introduction Track: Keywords/Phrases

- “b to b” business-to-business
- server
- fiber optic network

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Ms. Stevenson-Obrahta’s company focuses on what she calls “b-to-b” internet services. What issues does she face that a residential provider does not, and vice-versa?
- What sorts of challenges does a company such as Dolphini face in dealing with global clients rather than purely local clients?

Listen to the complete interview: Marshall Brain

[Founder, HowStuffWorks.com](#)

Introduction Track: Keywords / Phrases

- Compulsive
- Capitalism
- Economy
- Wall Street
- Probability

Sample Questions

- In the complete interview of Marshall Brain he frequently mentions writing. How do you think Marshall Brain's love for writing helped him attain and explore his future and career goals?
- Marshall Brain talks about two new book ideas. Do you any ideas that you feel you could turn into a book? What topics would the book explore? Who would be your primary audience?
- In the complete interview of Marshall Brain he talks about how he offered classes to Wall Street. How did Mr. Brain's love for writing lead to his first initial break?

Workforce Development, Education, Non-Profit Sector Listen to the complete interview: Patricia Stokes

[President & CEO, Urban League of Middle Tennessee](#)

Introduction Track: Keywords/Phrases

- National Urban League
- Centennial
- Workforce Development
- Youth Development
- Social Work
- Project Ready
- Scholarships
- Teamwork

All sample questions are designed in order to apply internet search as a basis for exploring and discovering new information.

Sample Questions

- Why was the Urban League created? What is special about its relationship to Nashville, TN?
- What are the different responsibilities of Ms. Patricia Stokes as the President & CEO of the Urban League?
- What does Patricia Stokes describe as surprising about serving in the role of a non-profit executive?
- What does Patricia Stokes state specifically about working in teams?
- What is the purpose of Project Ready? How does the program work with families and what are the program's goals?
- What is workforce development? Why is it important?
- What advice does Patricia Stokes have for students interested in her career field?
- What are the different ways that one can use a degree in social work?
- What does Patricia Stokes state specifically about skills that are important for successful employees?