

Researching Occupations

In this activity you will research three different occupations from your sector. You will compare them and think about whether you might enjoy pursuing one of them as a career.

You can find the available occupations listed for your sector on the attached table titled “Exploring Occupations”.

Occupation #1: _____

Go to Occupational Outlook Handbook using the link on the attached table.

Read about this occupation and watch the video if there is one. Feel free to click some of the links to more information. Then return to the table of Quick Facts to gather the following information.

Median Pay: _____

Click on  for Median Pay to help you answer the next two questions.

What does “median” mean?

Is this above or below the median pay of all workers? _____

What is the typical entry-level education for this occupation? _____

Every occupation will require the math skills you learn in middle and high school. Some occupations require a college degree. An Associate’s degree requires two years of college after high school. A Bachelor’s degree requires four years. A Master’s degree takes a total of six.

Number of Jobs: _____

This is the number of people already employed in this occupation.

Job Outlook: _____

This is the expected growth or decline in the number of jobs in this occupation over the next ten years.

Using the Job Outlook and the Number of Jobs, we can calculate how many new jobs will be available in this occupation over the next ten years.

Example: There are currently 151,600 dentists in the US. That occupation is growing at 3% per decade.

$$151,600 \times (3/100) = 4,548$$

This means that there will be 4,548 new dentists needed over the next ten years. That is in addition to the number needed to replace older dentists who retire or change careers.

Calculate the growth or decline in the number of jobs for this particular occupation.

Occupation #2: _____

Median Pay: _____

What is the typical entry-level education for this occupation? _____

Number of Jobs: _____

Job Outlook: _____

Calculate the growth or decline in the number of jobs for this particular occupation.

Occupation #3: _____

Median Pay: _____

What is the typical entry-level education for this occupation? _____

Number of Jobs: _____

Job Outlook: _____

Calculate the growth or decline in the number of jobs for this particular occupation.

If you had to choose one of the three occupations you researched to pursue as a career, which would you choose? Explain why. Include information about what people in this occupation do, their work environment, how easy it might be to find a job, and any other details you think are important.

Exploring Occupations

Sector	Occupation
Water and Waste	Civil Engineer
Water and Waste	Environmental Engineer
Water and Waste	Environmental Engineering Technician
Water and Waste	Environmental Scientist
Water and Waste	Hydrologist
Water and Waste	Waste Water Plant Operator
Water and Waste	Hazardous Materials Removal Workers
Transportation	Civil Engineer
Transportation	Civil Engineering Technician
Transportation	Mechanical Engineer
Transportation	Urban Planner
Transportation	Construction Equipment Operator
Transportation	Cartographer
Transportation	Surveying Technician
Food, Energy, and Communications	Electrical Engineer
Food, Energy, and Communications	Environmental Science and Protection Technician
Food, Energy, and Communications	Solar Photovoltaic Installer
Food, Energy, and Communications	Wind Turbine Technician
Food, Energy, and Communications	Agricultural Engineer
Food, Energy, and Communications	Line Installer and Repairer
Food, Energy, and Communications	Network and Computer System Administrator
Government	Lawyer
Government	Budget Analyst
Government	Assessor of Real Estate
Government	Emergency Management Director

Career Challenge! – Math at Work

Government	Meteorologist
Government	Police Officer
Government	Middle School Teacher
Government	School Superintendent
Health and Human Services	Medical and Health Service Manager
Health and Human Services	Physician
Health and Human Services	Licensed Practical Nurse
Health and Human Services	Registered Nurse
Health and Human Services	Social Service Assistant
Health and Human Services	Firefighter
Health and Human Services	Emergency Medical Technician
City Planning, Housing, and Construction	Architect
City Planning, Housing, and Construction	Construction and Building Inspector
City Planning, Housing, and Construction	Social Worker
City Planning, Housing, and Construction	Construction Manager
City Planning, Housing, and Construction	Plumber
City Planning, Housing, and Construction	HVAC Mechanics and Installers
City Planning, Housing, and Construction	Electrician
City Planning, Housing, and Construction	Carpenter

If the link for an occupation isn't working you can find the website at <https://www.bls.gov/ooh/>

Just enter an occupation of interest in the Search Handbook box or use the A-Z Index.