

Environmental Science & Protection Techs



WHAT THEY DO

Performs laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health. Under the direction of an environmental scientist or specialist, may collect samples of gases, soil, water, and other materials for testing, and take corrective actions as assigned. Belongs to the Science, Technology, Engineering and Mathematics cluster and Engineering and Technology pathway.

IS THIS FOR YOU?

Work Interests are described in the following categories (compatible with Holland's Model) by people who tend to succeed in this career:

- **Investigative** – You are a "thinker". When you have a problem, you like to analyze it and look at different ways to solve it. You like to work by yourself, and you don't like explaining your ideas to other people.
- **Realistic** – You are a "doer". You like physical activities and projects. You like to find the answers to problems by doing hands-on work instead of talking about solutions.

Work Values are aspects of work that are satisfying to you. The following work values are generally associated with this career.

- **Working Conditions** – It's very important to you that your work satisfies your needs in areas like salary, job security and your working style preferences, such as working alone, staying busy all the time or having variety in your work tasks..
- **Independence** – It's very important to you that your work allows you to make decisions on your own. You want to try out your own ideas and work with little supervision.

Aptitudes reflect a person's ability to acquire skills and knowledge. The following aptitudes are important for success in the career:

- **General Learning Ability**
- **Verbal Aptitude**
- **Numerical Aptitude**

Additional skills for this occupation may be found at <http://www.iowaworkforcedevelopment.gov/career-exploration-resources>

SKILLS YOU NEED

Basic Skills:

- Reading Comprehension
- Active Listening
- Writing
- Speaking
- Mathematics
- Science
- Critical Thinking
- Active Learning
- Monitoring

Transferable Skills (applicable in other careers):

High level

- Analyzing and interpreting physical science data
- Explaining physical science concepts
- Investigating data to solve problems
- Working as a member of a physical science team

Medium level

- Designing systems
- Drawing diagrams, charts, and maps
- Preparing technical or research reports
- Operating computers to record and analyze physical science data

Workplace Skills:

Medium level

- Complex Problem Solving
- Coordination
- Equipment Selection
- Instructing
- Judgment and Decision Making
- Persuasion
- Quality Control Analysis
- Social Perceptiveness
- Time Management
- Troubleshooting

Source: <https://secure.ihaveaplaniowa.gov/>

ESTIMATED & PROJECTED EMPLOYMENT

Occupational Title	2012 Estimated Employment	2022 Projected Employment	2012-22 Employment Change	Annual Growth Rate (%)	Total Annual Openings
Total, All Occupations	1,758,205	1,955,480	197,275	1.1	61,665
Life, Physical, & Social Science Occupations	12,490	13,850	1,360	1.1	525
Environmental Science & Protection Technicians, Incl Health	440	550	105	2.4	30

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

2015 WAGE & SALARY (\$)

Occupational Title	Average Wage	Average Salary	Entry Wage	Entry Salary	Experienced Wage	Experienced Salary
Total, All Occupations	19.77	41,122	9.55	19,858	24.88	51,755
Life, Physical, & Social Science Occupations	28.06	58,366	16.55	34,421	33.82	70,338
Environmental Scientists & Specialists, Incl Health	31.14	64,775	21.37	44,449	36.03	74,938

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

EDUCATION & TRAINING

Education	Work Experience	Job Training
Associate's Degree	None	None

Environmental science and protection technicians need an associate's degree or comparable postsecondary training for most jobs. New technicians are often trained on the job by more experienced environmental science and protection technicians. In some states, environmental science and protection technicians need a license to do certain types of environmental and health inspections. For example, some states require licensing for technicians who test buildings for radon. Licensure requirements vary by state but typically include minimum levels of education and experience and a passing score on an exam. Approved apprenticeship programs/sponsors in Iowa can be found at http://access.bridges.com/ext/cp/custom_state_data/iowa_apprenticeship/1940910.htm Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0> and <https://secure.ihaveaplaniowa.gov/>

NATIONAL CAREER READINESS CERTIFICATE (NCRC)

Skill	Median Skill Level
Applied Mathematics	n.a.
Locating Information	n.a.
Reading for Information	n.a.

This ACT-developed credential demonstrates achievement and a certain level of workplace employability skills. The greater the score, the greater the skill level (Bronze = 3, Silver = 4, Gold = 5, Platinum = 6).

Source: <http://www.act.org/workkeys/analysis/occup.html>

PRIMARY INDUSTRY SECTORS

(Where are Environmental Science & Protection Techs Employed?)

Professional, Scientific, & Technical
Local Government
Education

Source: <http://www.iowaworkforcedevelopment.gov/occupational-projections-0>

ADDITIONAL SOURCES:

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