

# Career Descriptions—Target Moon



## AEROSPACE ENGINEER

### Description

Perform engineering work in designing, constructing, and testing aircraft, missiles, and spacecraft. Conduct research on aircraft design. Recommend improvements in testing equipment and techniques.

### Tasks

Design aeronautical or aerospace products to meet customer requirements.

Direct engineering of aircraft or aerospace products.

Plan and conduct experimental and stress tests on models and prototypes of aircraft and aerospace systems and equipment.

### Skills

**Time Management** - Manage one's own time and the time of others.

**Critical Thinking** - Use logic and reasoning to identify approaches to problems.

**Judgment and Decision Making** - Consider the relative costs and benefits of actions to choose the most appropriate one.

### Interests

*More than 100,000 people in 1,600-plus jobs evaluated their work in six areas of career interests: realistic, investigative, artistic, social, enterprising, and conventional. The three categories below describe the career interests of people in this job.*

### Investigative

Working with ideas, doing an extensive amount of thinking, searching for facts, and figuring out problems mentally.

### Realistic

Dealing with practical, hands-on problems and solutions, often involving plants, animals, and real-world materials like wood, tools, and machinery; often working outside without a lot of paperwork or working closely with others.

### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Design** - Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

**Engineering and Technology** - Knowledge of the design and production of various goods and services.

**Physics** - Knowledge of fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and sub atomic structures and processes.

### Average Income

\$72,750

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

45

# Career Descriptions—Target Moon



## AEROSPACE ENGINEERING TECHNICIAN

### Description

Operate computer systems in order to launch and track air and space vehicles. Use simulators, instruments, and other devices in order to track vehicles. May record and interpret test data.

### Tasks

Communicate with engineers regarding test results.

Operate computer systems to run and analyze vehicle tests.

Inspect, diagnose, and maintain test equipment.

Construct and maintain test facilities for aircraft parts and systems, according to specifications.

### Skills

**Science** - Use scientific rules and methods to solve problems.

**Mathematics** - Use mathematics to solve problems.

**Operation Monitoring** - Watch gauges, dials, or other indicators to make sure a machine is working properly.

**Quality Control Analysis** - Conduct tests and inspections of products, services, or processes to evaluate quality or performance.

### Interests

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#### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Engineering and Technology** - Knowledge of engineering science and technology. This includes applying principles and procedures to the design of various goods and services.

**Computers and Electronics** - Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**Physics** - Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and subatomic structures and processes.

**Mechanical** - Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

**English Language** - Knowledge of the structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

### Average Income

\$51,650

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

9

# Career Descriptions—Target Moon



## AIRLINE PILOT, COPILOT, and FLIGHT ENGINEER

### Description

Pilot and navigate the flight of multiengine aircraft for the transport of passengers and cargo. Obtain a certification for the type of aircraft being flown.

### Tasks

Instruct other pilots and student pilots in aircraft operations and the principles of flight.

Work as part of a flight team with other crew members, especially during takeoffs and landings.

Steer aircraft along planned routes with the assistance of autopilot and flight management computers.

### Skills

#### Operation and Control -

Control operations of equipment or systems.

**Operation Monitoring** - Watch gauges, dials, or other indicators to make sure a machine is working properly.

**Active Listening** - Give full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

### Interests

*More than 100,000 people in 1,600-plus jobs evaluated their work in six areas of career interests: realistic,*

*investigative, artistic, social, enterprising, and conventional. The three categories below describe the career interests of people in this job.*

#### Investigative

Working with ideas, doing an extensive amount of thinking, searching for facts, and figuring out problems mentally.

#### Realistic

Dealing with practical, hands-on problems and solutions, often involving plants, animals, and real-world materials like wood, tools, and machinery; often working outside without a lot of paperwork or working closely with others.

**Enterprising** - Starting up and carrying out projects; leading people and making many decisions; taking risks and often dealing with business.

### Knowledge

**Transportation** - Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.

**Physics** - Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and subatomic structures and processes.

**Geography** - Knowledge of principles and methods for describing the features of land, sea, and air masses, including their physical characteristics, locations,

interrelationships, and distribution of plant, animal, and human life.

### Average Income

\$109,580

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

57

# Career Descriptions—Target Moon



## ASTRONOMER

### Description

Observe, research, and interpret celestial and astronomical events. Increase basic knowledge about these events and apply it to practical problems.

### Tasks

Study history, structure, and evolution of stars, stellar systems, and universe.

Analyze wavelengths of radiation from celestial bodies, as observed in all ranges of spectrum.

Develop mathematical tables giving positions of sun, moon, planets, and stars at given times for use by air and sea navigators.

Design optical, mechanical and electronic instruments for astronomical research.

Study celestial phenomena from ground or above atmosphere, using various optical devices, such as telescopes situated on ground or attached to satellites.

Compute positions of sun, moon, planets, stars, nebulae, and galaxies.

Calculate orbits and determine sizes, shapes, brightness, and motions of different celestial bodies.

### Skills

**Science** - Use scientific rules and methods to solve problems.

**Mathematics** - Use mathematics to solve problems.

**Reading Comprehension** - Understand written sentences and paragraphs.

**Critical Thinking** - Use logic and reasoning.

**Active Learning** - Understand information for decision making.

### Interests

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#### Realistic

Dealing with practical, hands-on problems and solutions, often involving plants, animals, and real-world materials like wood, tools, and machinery; often working outside without a lot of paperwork or working closely with others.

#### Artistic

Creating beautiful things, such as new ideas, art, music, or writing.

### Knowledge

**Engineering and Technology** - Knowledge of engineering science and technology. This includes

applying principles and procedures to the design of various goods and services.

**Computers and Electronics** - Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**Physics** - Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and subatomic structures and processes.

### Average Income

\$51,650

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

9

# Career Descriptions—Target Moon



## ATMOSPHERIC AND SPACE SCIENTIST

### Description

Investigate atmospheric phenomena. Interpret data gathered by stations, satellites, and radar. Prepare reports and forecasts for public and other uses.

### Tasks

Broadcast weather conditions, forecasts, and severe weather warnings to the public using television, radio, and the Internet.

Study and interpret data, using computer models.

Prepare forecasts and briefings to meet the needs of industry, business, government, and other groups.

### Skills

**Critical Thinking** - Use logic to identify the strengths and weaknesses of different solutions to problems.

**Active Learning** - Understand the meaning of new information for decision making.

**Operation and Control** - Control operations of equipment or systems.

### Interests

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### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Communications and Media** - Knowledge of media production and communication methods. This includes knowing different ways to inform and entertain through written, oral, and visual media.

**Physics** - Understanding of fluid and atmospheric dynamics. Understand atomic and subatomic structures and processes.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

### Average Income

\$60,200

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

5

# Career Descriptions—Target Moon



## CALIBRATION AND INSTRUMENTATION TECHNICIAN

### Description

Develop, test, calibrate, operate, and repair many types of instruments. Instruments include mechanical, electromechanical, and electrohydraulic measuring and recording instruments.

### Tasks

Sketch plans for developing instruments and related equipment.

Disassemble and reassemble instruments and equipment, using hand tools.

Inspect instruments and equipment for defects.

Select sensing, telemetering, and recording instrumentation and circuitry.

### Skills

**Equipment Selection –** Determine the kind of tools and equipment needed to do a job.

**Equipment Maintenance -** Perform routine maintenance on equipment and determine when and what kind of maintenance is needed.

**Mathematics -** Use mathematics to solve problems.

**Quality Control Analysis –** Conduct tests and inspections of products, services, or processes to evaluate quality or performance.

### Interests

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#### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Engineering and Technology -** Knowledge of engineering science and technology. This includes applying principles and procedures to the design of various goods and services.

**Mathematics -** Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

### Computers and Electronics -

Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

**Mechanical -** Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

### Average Income

\$55,157

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

51



# Career Descriptions—Target Moon



## CARTOGRAPHER AND PHOTOGRAMMETRIST

### Description

Collect, analyze, and interpret geographic information provided by surveys, aerial photographs, and satellite data. Research, study, and prepare maps for legal, educational, and other purposes. May work with geographic information systems (GIS).

### Tasks

Prepare and alter trace maps, charts, tables, detailed drawings, and three-dimensional optical models of terrain.

Analyze data from ground surveys, reports, aerial photographs, and satellite images in order to prepare topographic maps and related charts.

Revise existing maps and charts, making all necessary corrections and adjustments.

### Skills

**Mathematics** - Use mathematics to solve problems.

**Operations Analysis** - Analyze needs and product requirements to create a design.

**Equipment Selection** - Determine the kind of tools and equipment needed to do a job.

### Interests

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### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Geography** - Knowledge of methods for describing the features of land, sea, and air masses, including their physical characteristics, and distribution of plant, animal, and human life.

**Design** - Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

### Average Income

\$42,870

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

6

# Career Descriptions—Target Moon



## CHEMIST

### Description

Conduct chemical analyses or experiments in laboratories for quality control or to develop new products or knowledge.

### Tasks

Develop, improve, and customize products, equipment, formulas, processes, and analytical methods.

Analyze organic and inorganic compounds to determine chemical and physical properties.

Determine the composition, structure, and relationships of compounds, using chromatography techniques.

Prepare test solutions, compounds, and reagents for laboratory personnel to conduct test.

### Skills

#### Quality Control Analysis -

Conduct tests and inspections of products, services, or processes to evaluate quality or performance.

#### Complex Problem Solving -

Identify complex problems and review related information to develop and evaluate options and implement solutions.

#### Reading Comprehension -

Understand written sentences and paragraphs in work-related documents.

### Interests

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#### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Chemistry** - Knowledge of the chemical composition, structure, and properties of substances. Understanding of the chemical processes and transformations that chemicals undergo.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**Engineering and Technology** - Knowledge of engineering science

and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services

### Average Income

\$52,890

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

58



# Career Descriptions—Target Moon



## EMERGENCY MANAGEMENT SPECIALIST

### Description

Coordinate disaster response or crisis management activities. Provide training on preparing for disasters. Prepare emergency plans and procedures for natural and other disasters

### Tasks

Study emergency plans used elsewhere in order to gather information for plan development.

Prepare plans that outline operating procedures to be used in response to disasters/emergencies, such as hurricanes, nuclear accidents, and terrorist attacks, and in recovery from these events.

Apply for federal funding for emergency management-related needs; administer such grants and report on their progress.

### Skills

**Mathematics** - Use mathematics to solve problems.

**Active Learning** - Understand new information for problem solving and decision making.

**Complex Problem Solving** - Identify complex problems and determine solutions.

### Interests

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### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Clerical** - Knowledge of procedures such as word processing, managing files and records, and other office procedures and terminology.

**English Language** - Knowledge of the structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

### Average Income

\$43,560

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

9

# Career Descriptions—Target Moon



## GEOLOGICAL SAMPLE TECHNICIAN

### Description

Look for petroleum, gas, or mineral gas by testing geological samples. Analyze the physical and chemical properties of petroleum products to determine the quality of the material.

### Tasks

Supervise well exploration and drilling activities.

Participate in geological, oceanographic, and other surveys.

Compile and record test data for review and further analysis.

### Skills

**Science** - Use scientific rules and methods to solve problems.

**Quality Control Analysis** - Conduct tests and inspections of products, services, or processes to determine quality or performance.

**Operation and Control** - Control operations of equipment or systems.

### Interests

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### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Mechanical** - Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

**Engineering and Technology** - Knowledge of the techniques to design and produce various goods and services.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

### Average Income

\$51,740

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

22

# Career Descriptions—Target Moon



## GEOLOGIST

### Description

Study composition, structure, and history of the Earth's crust. Examine rocks, minerals, and fossil remains to study the development of the Earth. Apply knowledge of chemistry, physics, biology, and mathematics to explain geological processes. Locate mineral and petroleum deposits and underground water resources.

### Tasks

Locate natural gas, oil, and mineral ore deposits and underground water resources, using aerial photographs, charts, and research and survey results.

Conduct geological studies to provide information for community development issues.

Study ground and surface water movement in order to provide advice on issues like waste management.

### Skills

**Mathematics** - Use mathematics to solve problems.

**Science** - Use scientific rules and methods to solve problems.

**Writing** - Communicate effectively in writing as appropriate for the needs of the audience.

### Interests

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#### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

#### Engineering and Technology -

Knowledge of engineering science and technology. This includes applying principles and procedures to the design of various goods and services.

**Physics** - Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and subatomic structures and processes.

**Chemistry** - Knowledge of the chemical composition, structure,

and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, and disposal methods.

### Average Income

\$51,740

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

22

# Career Descriptions—Target Moon



## MATHEMATICIAN

### Description

Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields by mathematical methods.

### Tasks

Apply mathematical theories and techniques to the solution of practical problems in business, engineering, or the sciences.

Address the relationships of quantities, magnitudes, and forms through the use of numbers and symbols.

Perform computations and apply methods of numerical analysis to data.

Conduct research to extend mathematical knowledge in traditional areas, such as algebra, geometry, probability, and logic.

### Skills

**Mathematics** - Use mathematics to solve problems.

**Active Learning** - Understand the implications of new information for both current and future problem solving and decision making.

**Critical Thinking** - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

### Interests

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#### Investigative

Working with ideas, doing an extensive amount of thinking, searching for facts, and figuring out problems mentally.

#### Artistic

Working with forms, designs, and patterns and often requiring self-expression and without following a clear set of rules.

#### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Engineering and Technology** - Knowledge of engineering science and technology. This includes applying principles and procedures to the design of various goods and services.

**Geography** - Knowledge of principles and methods for describing the features of land, sea, and air masses, including their physical characteristics, locations, interrelationships, and distribution of plant, animal, and human life.

**Mathematics** - Knowledge of arithmetic, algebra, geometry,

calculus, statistics, and their applications.

**Mechanical** - Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

### Average Income

\$76,470

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

2

# Career Descriptions—Target Moon



## MINING AND GEOLOGICAL ENGINEER, INCLUDING MINING SAFETY ENGINEER

### Description

Determine the location and plan the extraction of coal, metallic ores, nonmetallic minerals, and building materials, such as stone and gravel. Conduct surveys of deposits or undeveloped mines and plan their development. Examine deposits or mines to determine whether they can be worked at a profit. Make geological and topographical surveys.

### Tasks

Test air in ventilation shafts to detect toxic gases and recommend measures to remove them.

Select methods and equipment to transport waste materials and mineral products efficiently and economically.

Select or develop mineral location, extraction, and production methods, based on factors such as safety, cost, and deposit characteristics.

Prepare schedules, reports, and estimates of the costs involved in developing and operating mines.

### Skills

**Science** - Use scientific rules and methods to solve problems.

**Mathematics** - Use mathematics to solve problems.

**Critical Thinking** - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

**Active Learning** - Understand the implications of new information for both current and future problem solving and decision making.

**Operations Analysis** - Analyze the needs and product requirements to create a design to make sure a machine is working properly.

**Quality Control Analysis** - Conduct tests and inspections of products, services, or processes to evaluate quality or performance.

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**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**Physics** - Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and subatomic structures and processes.

**Mechanical** - Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

### Average Income

\$61,770

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

3

# Career Descriptions—Target Moon



## PHYSICIST

### Description

Conduct research into the phases of physical phenomena. Develop theories and laws based on observation and experiments. Apply laws and theories to industry and other fields.

### Tasks

Test radioactive equipment for contamination and record data.

Develop theories and laws on the basis of observation and experiments. Apply these theories to problems in areas such as nuclear energy, optics, and aerospace technology.

Describe and express observations and conclusions in mathematical terms.

### Skills

**Active Learning** - Understand the meaning of new information for problem solving and decision making.

**Mathematics** - Use mathematics to solve problems.

**Science** - Use scientific rules and methods to solve problems.

### Interests

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**Enterprising** - Starting up and carrying out projects; leading people and making many decisions; taking risks and often dealing with business.

### Knowledge

**English Language** - Knowledge of the structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

**Physics** - Understanding of fluid and atmospheric dynamics. Understand atomic and subatomic structures and processes.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

### Average Income

\$85,020

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

8



# Career Descriptions—Target Moon



## STATISTICIAN

### Description

Collect and interpret numerical data to provide useful information. Contribute to development of mathematical theory. Specialize in fields such as biostatistics, agricultural statistics, business statistics, or other fields.

### Tasks

Analyze and interpret statistical data in order to identify significant differences in relationships among sources of information.

Adapt statistical methods in order to solve specific problems in many fields, such as economics, biology, and engineering.

Prepare data for processing by organizing information, checking for any inaccuracies, and adjusting and weighting the raw data.

### Skills

**Mathematics** - Use mathematics to solve problems.

**Active Learning** - Understand new information for problem solving and decision making.

**Complex Problem Solving** - Identify complex problems and determine solutions.

### Interests

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### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Clerical** - Knowledge of procedures such as word processing, managing files and records, and other office procedures and terminology.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**English Language** - Knowledge of the structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

### Average Income

\$57,080

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

13

# Career Descriptions—Target Moon



## SURVEYING TECHNICIAN

### Description

Adjust and operate surveying instruments. Compile notes, make sketches and enter data into computers.

### Tasks

Record survey measurements and descriptive data, using notes, drawings, sketches, and inked tracings.

Position and hold the vertical rods, or targets, that survey technicians use for sighting in order to measure angles, distances, and elevations.

Place and hold measuring tapes when electronic distance-measuring equipment is not used.

Perform calculations to determine earth curvature corrections, atmospheric impacts on measurements, and other measurements.

### Skills

**Mathematics** - Use mathematics to solve problems.

**Reading Comprehension** - Understand written sentences and paragraphs in work-related documents.

**Writing** – Communicate effectively in writing as appropriate for the needs of the audience.

### Operation and Control -

Control operations of equipment or systems.

### Interests

*More than 100,000 people in 1,600-plus jobs evaluated their work in six areas of career interests: realistic, investigative, artistic, social, enterprising, and conventional. The three categories below describe the career interests of people in this job.*

#### Investigative

Working with ideas, doing an extensive amount of thinking, searching for facts, and figuring out problems mentally.

#### Realistic

Dealing with practical, hands-on problems and solutions, often involving plants, animals, and real-world materials like wood, tools, and machinery; often working outside without a lot of paperwork or working closely with others.

#### Conventional

Following set procedures and routines; working with data and details more than with ideas, usually with a clear line of authority to follow.

### Knowledge

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

**Physics** - Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric

dynamics, and mechanical, electrical, atomic and subatomic structures and processes.

**English Language** - Knowledge of the structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

### Average Income

\$55,157

### Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

51

# Career Descriptions—Target Moon



## SURVEYOR

### Description

Make exact measurements and determine property boundaries. Determine the shape, elevation, or dimension of land. Use land information for engineering, mapmaking, mining, and other purposes.

### Tasks

Prepare or supervise preparation of all data, charts, plots, maps, records, and documents related to surveys.

Prepare and maintain sketches and legal descriptions of surveys in order to certify and assume liability for work performed.

Plan and conduct ground surveys designed to establish baselines, elevations, and other measurements.

### Skills

**Writing** - Communicate effectively in writing as appropriate for the needs of the audience.

**Mathematics** - Use mathematics to solve problems.

**Science** - Use scientific rules and methods to solve problems.

### Interests

*More than 100,000 people in 1,600-plus jobs evaluated their work in six areas of career interests: realistic, investigative, artistic, social, enterprising, and conventional. The three categories*

*below describe the career interests of people in this job.*

### Investigative

Working with ideas, doing an extensive amount of thinking, searching for facts, and figuring out problems mentally.

### Realistic

Dealing with practical, hands-on problems and solutions, often involving plants, animals, and real-world materials like wood, tools, and machinery; often working outside without a lot of paperwork or working closely with others.

**Enterprising** - Starting up and carrying out projects; leading people and making many decisions; taking risks and often dealing with business.

### Knowledge

**Geography** - Understanding the methods for describing the features of land, sea, and air masses. Understanding their physical characteristics and distribution of plant, animal, and human life.

**Physics** - Understanding of fluid and atmospheric dynamics. Understand atomic and subatomic structures and processes.

**Mathematics** - Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

### Average Income

\$39,970

## Job Needs

Current jobs needs for the year 2012 for every 100,000 people:

35