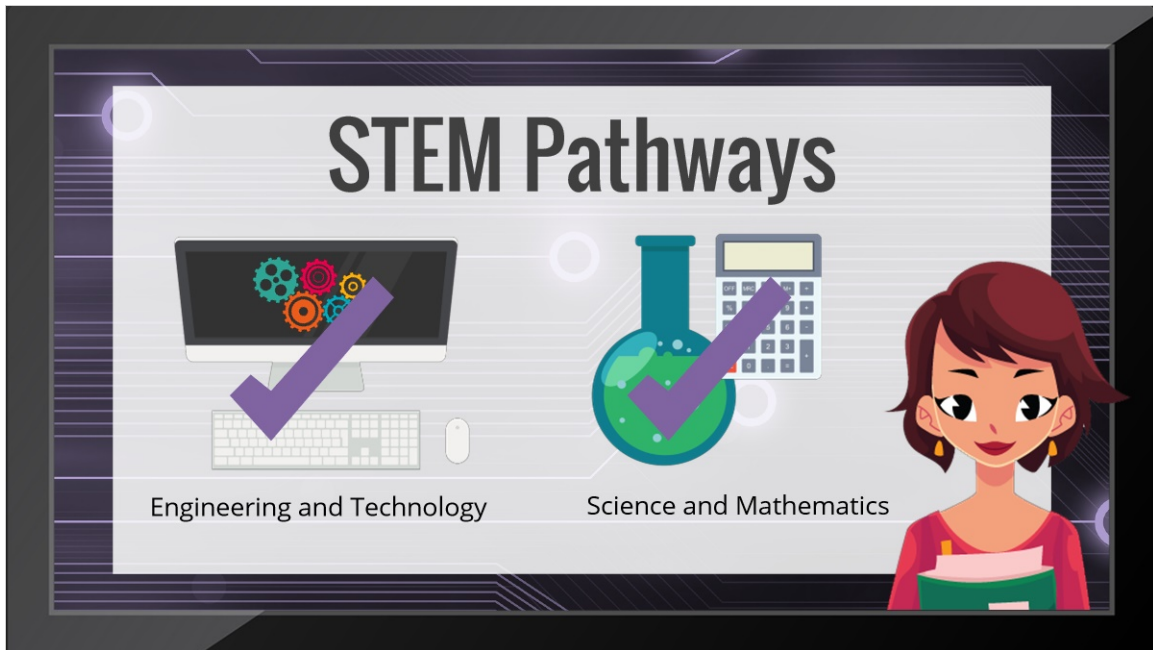


# Middle School Career Investigations

## STEM Pathways

### Introduction

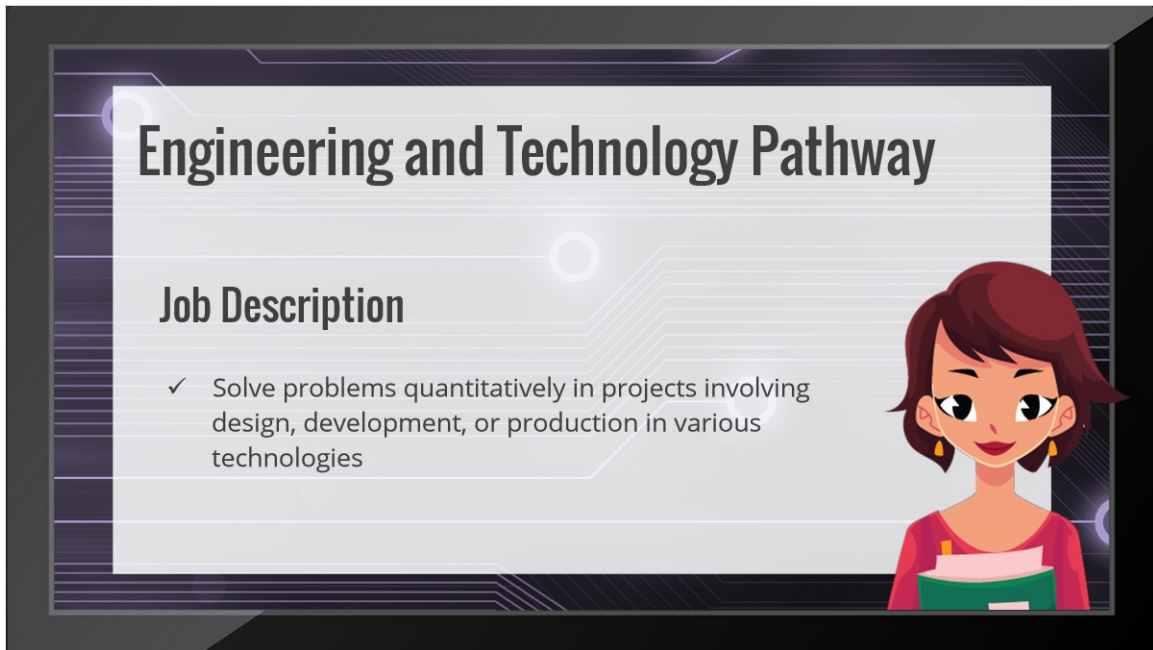


Take a deeper dive into the two pathways that make up the STEM Career Cluster. The first one is the Engineering and Technology Pathway. The second is the Science and Mathematics Pathway. Click on each set of icons to learn about each pathway.

# Middle School Career Investigations

## STEM Pathways

### Engineering and Technology Description



**Engineering and Technology Pathway**

**Job Description**

- ✓ Solve problems quantitatively in projects involving design, development, or production in various technologies

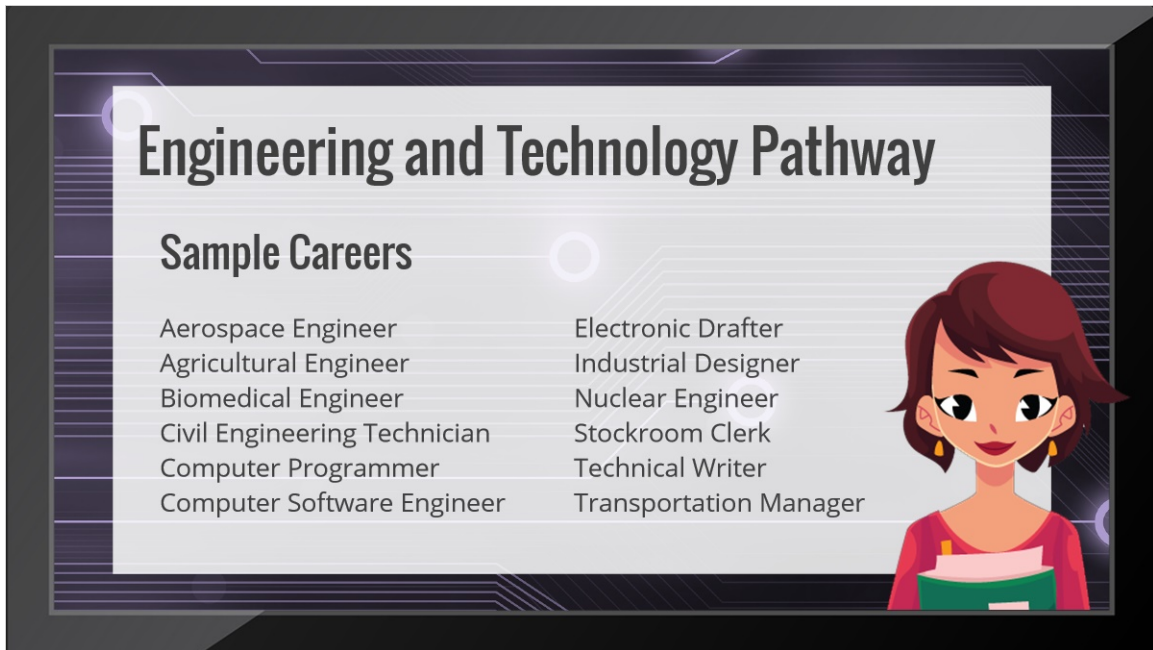
The graphic features a dark blue background with a white central panel. The title 'Engineering and Technology Pathway' is at the top in a large, bold, sans-serif font. Below it, the heading 'Job Description' is followed by a single bullet point with a checkmark. To the right of the text is a cartoon illustration of a woman with short brown hair, wearing a red top and holding a green folder with papers. The background of the graphic includes faint circuit-like patterns and glowing circles.

People with careers in engineering and technology solve problems in projects involving design, development, or production in various technologies.

# Middle School Career Investigations

## STEM Pathways

### Engineering and Technology Careers



The graphic features a dark background with a glowing blue and white grid pattern. At the top, the title "Engineering and Technology Pathway" is written in a large, bold, white font. Below the title, the heading "Sample Careers" is displayed in a smaller, bold, white font. A list of 12 career titles is arranged in two columns, with each title in a white sans-serif font. To the right of the text, there is a cartoon illustration of a young woman with short brown hair, wearing a red top and holding a green folder with papers. The entire graphic is framed by a dark border with a subtle grid pattern.

### Engineering and Technology Pathway

#### Sample Careers

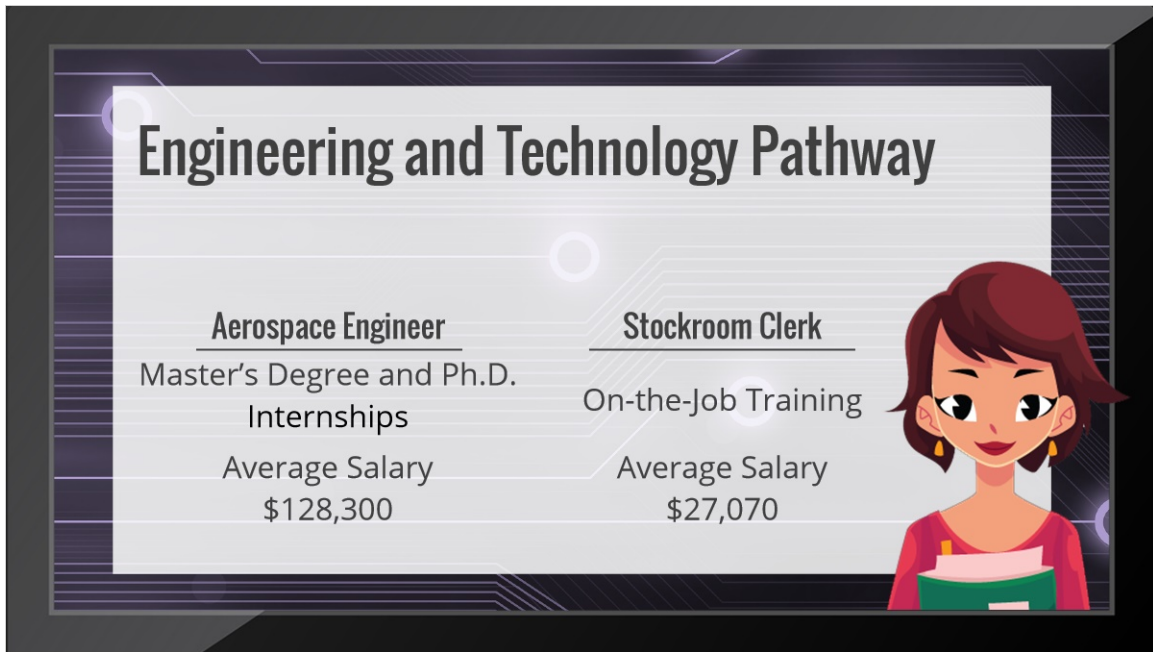
Aerospace Engineer	Electronic Drafter
Agricultural Engineer	Industrial Designer
Biomedical Engineer	Nuclear Engineer
Civil Engineering Technician	Stockroom Clerk
Computer Programmer	Technical Writer
Computer Software Engineer	Transportation Manager

Some of the different careers in this pathway include Aerospace Engineer, Agricultural Engineer, Biomedical Engineer, Civil Engineering Technician, Computer Programmer, Computer Software Engineer, Electronic Drafter, Industrial Designer, Nuclear Engineer, Stockroom Clerk, Technical Writer, or Transportation Manager.

# Middle School Career Investigations

## STEM Pathways

### Engineering and Technology Education and Salaries



The graphic is a digital-style presentation board with a dark background and glowing circuit-like lines. At the top, the title "Engineering and Technology Pathway" is written in a bold, sans-serif font. Below the title, two columns of text compare career paths. The left column is for "Aerospace Engineer" and the right for "Stockroom Clerk". Each column lists educational requirements, training methods, and average salaries. To the right of the text is a cartoon illustration of a woman with short brown hair, wearing a red top and holding a green folder with papers.

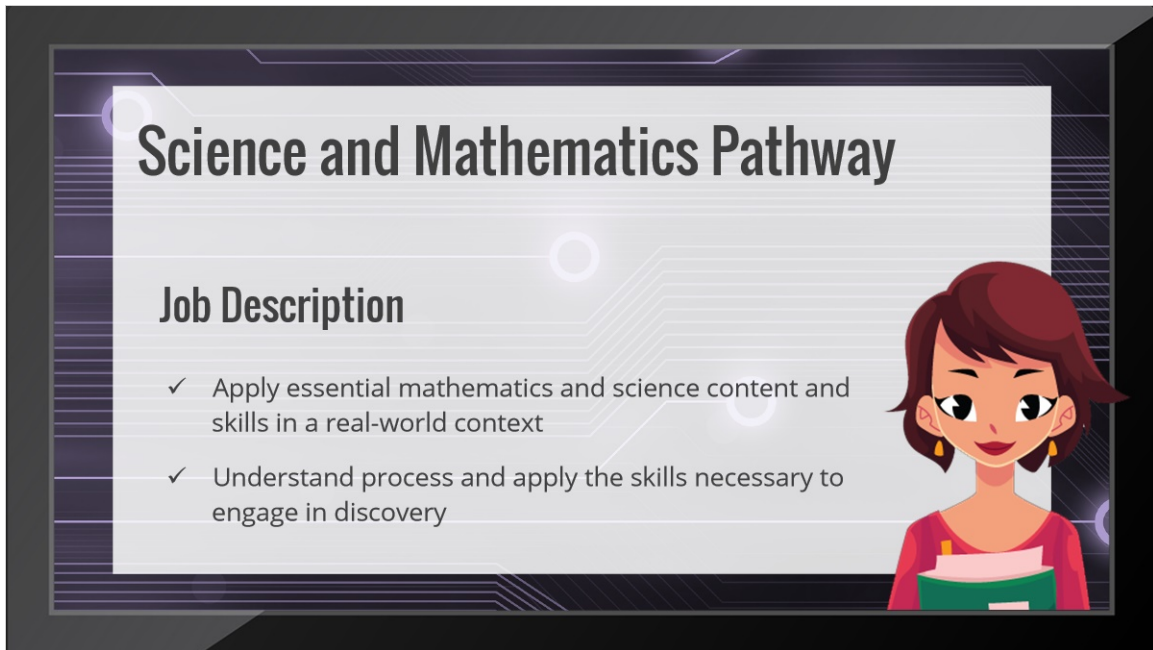
Career Path	Education/Training	Average Salary
Aerospace Engineer	Master's Degree and Ph.D. Internships	\$128,300
Stockroom Clerk	On-the-Job Training	\$27,070

There is a range in educational requirements and salaries in this pathway. Aerospace Engineers require a Master's Degree and some employers may require a Ph.D. They have also engaged in rigorous internships. Their average salary of an Aerospace Engineer is \$128,300. Stock room clerks require on-the-job training to learn about their career. The average salary for a stockroom clerk is \$27,070.

# Middle School Career Investigations

## STEM Pathways

### Science and Mathematics Description



**Science and Mathematics Pathway**

**Job Description**

- ✓ Apply essential mathematics and science content and skills in a real-world context
- ✓ Understand process and apply the skills necessary to engage in discovery

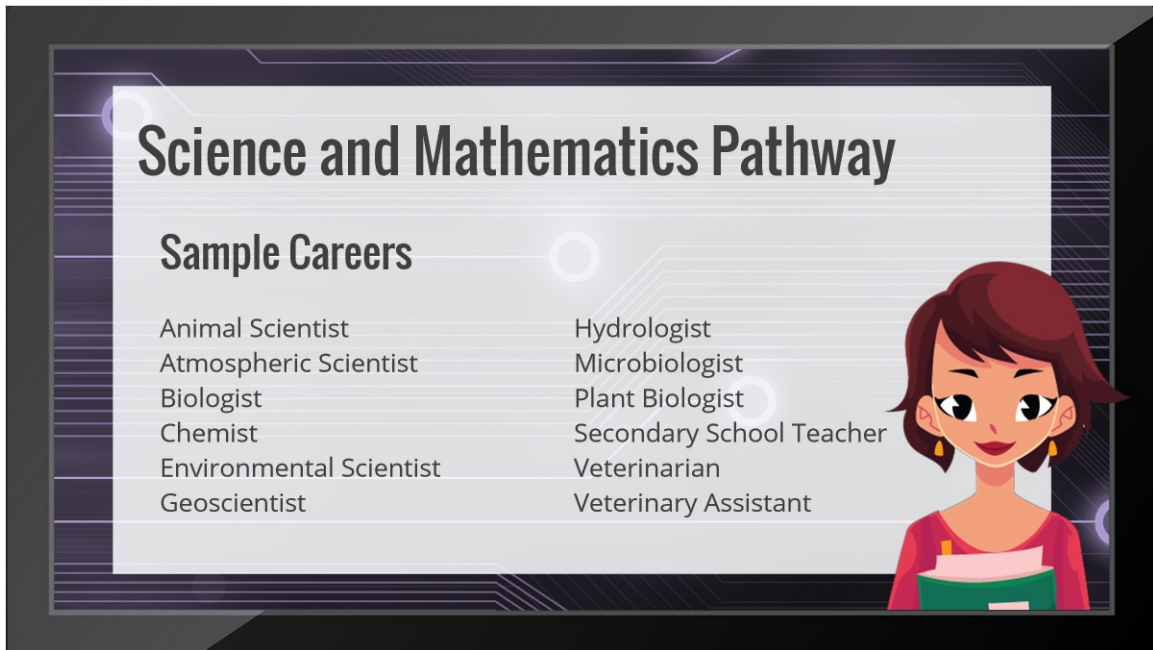
The graphic features a dark background with a light gray central panel. The title 'Science and Mathematics Pathway' is at the top. Below it, the heading 'Job Description' is followed by two bullet points. To the right of the text is a cartoon illustration of a woman with short brown hair, wearing a red top, holding a green book. The background has faint circuit-like patterns and glowing circles.

Employees with careers in science and mathematics apply essential mathematics and science content and skills in a real-world context. They understand process and apply the skills necessary to engage in discovery.

# Middle School Career Investigations

## STEM Pathways

### Science and Mathematics Careers



## Science and Mathematics Pathway

### Sample Careers

Animal Scientist	Hydrologist
Atmospheric Scientist	Microbiologist
Biologist	Plant Biologist
Chemist	Secondary School Teacher
Environmental Scientist	Veterinarian
Geoscientist	Veterinary Assistant

Some of the different careers in this pathway include Animal Scientist, Atmospheric Scientist, Biologist, Chemist, Environmental Scientist, Geoscientist, Hydrologist, Microbiologist, Plant Biologist, Secondary School Teacher, Veterinarian, and Veterinary Assistant.

# Middle School Career Investigations

## STEM Pathways

### Science and Mathematics Education and Salaries

Chemist	Veterinary Assistant
Master's Degree	Associate's Degree On-the-Job Training
Average Salary \$96,680	Average Salary \$25,180

There is a range in educational requirements and salaries in this pathway. Chemists require a Master's Degree for their position. They have an average salary of \$96,680. Veterinary Assistants require an Associate's Degree and on-the-job training to learn about their career. The average salary for a veterinary assistant is \$25,180.