

*Planning a successful career can begin in high school!*

### The Center of Applied Technology South

High school students can attend the Center of Applied Technology South (CAT South) as part of their regular daily schedule. In each program, students can earn credits required for graduation.

Completion of any of the 13 programs at the Center provides students with a combination of technical and academic expertise that can be utilized in a variety of ways. All programs offer the background and experience needed for immediate employment. Many programs articulate with colleges and universities, so students can earn college credits while in high school.

The programs at CAT South offer the foundation for employment, knowledge about related careers and continuing education, and work study positions. Studies combine both academics and applied technology.

### The Career Exploration Program

The Career Exploration program allows students to explore four programs in one semester and earn 0.5 credit. Career Explorations is taken during period 1B. Transportation is provided to and from CAT South.

Semesters	Programs	Credits
One	4	1/2 Credit

Students can experience the environment, equipment, materials, skills, and safety rules of their chosen technical areas. The information students gain can be of significant value in career planning and expanding their interests and abilities.



More information is available at [www.catsouth.org](http://www.catsouth.org)

Phone: 410-956-5900

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ANNE ARUNDEL  
COUNTY PUBLIC SCHOOLS

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For more information, contact:  
Anne Arundel County Public Schools Division of Human Resources  
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[www.aacps.org](http://www.aacps.org)  
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Anne Arundel County Public Schools

# What is it?

The **Electricity** program provides high school students with knowledge and skills to launch a career in electricity. **Level 1** introduces basic skills, practices and theories of electricity and its applications to circuits, devices and materials. Topics include the national electrical code book, electron theory, direct current fundamentals, series/parallel circuits, power, alternating current fundamentals, and calculations for power, voltage, current and resistance. Safety is emphasized as students learn to wire electrical circuits and equipment projects.

**Level 2** provides students with advanced training in the techniques, processes and theories introduced in Level 1. Electrical controls, blueprint reading, estimating, trouble-shooting, meter reading, advanced wiring projects and special circuits are included.

Skills and career development through the *National Center for Construction Education and Research's* (NCCER) training curriculum, provides students with industry recognized credentials in a national registry. Students are also guided in preparing a resume, a portfolio, and employment interview skills.

## Industry Certification

National Center for Construction Education & Research (NCCER)

- Core
- Electricity Level 1

Occupational Safety & Health Administration (OSHA 10)

# About the program...

*You will:*

Gain experience in many aspects of the electricity field, including:

- Demonstrating safe work practices in the electrical shop and trade.
- Demonstrating a knowledge of basic electrical theory.
- Applying knowledge about alternating current to circuits and transformers.
- Constructing projects for residential wiring.
- Identifying and properly using conduit and associated wiring and fittings.
- Applying principles and demonstrating a knowledge of commercial electrical installations.
- Interpreting and drawing circuit layouts.
- Interpreting and applying national and local electrical codes.
- The ability to earn industry recognized NCCER credentials in a curriculum that employs the Contren Learning Series including the Level 1 Fundamental text and the Core Curriculum Training Guide.

## Program Requirements

- Students must be entering 10th or 11th grade.
- Students must maintain a 2.0 GPA in all classes.
- Students must maintain a C or better to continue to level 2.
- Recommended completion of Algebra 1 with a C or better.

## Credit Requirements

Credits required for completer — 4		
<b>Level I</b>	1.0 Credit	One semester
<b>Level II</b>	3.0 Credits	Two semesters
Technical Math	1.0 Credit	Two semesters
Optional		
<b>Work Based Learning</b>	2.0 Credits	One semester
	4.0 Credits	Two semesters

## Entry Level Careers

- Electrician
- Electrical Technician
- Industrial Electrician
- Residential Wiring Electrician
- Power Plant Operator
- Solar Photovoltaic Installers

## Related Professions

- Construction Manager
- Electrical Designer
- Electrical Drafter
- Electrical Engineer
- Electrical Foreman
- Electrical Project Manager
- Journeyman
- Master Electrician

