

Middle School Career and Technical Education

Middle School Career and Technical Education Courses

Career Investigations

This course helps students identify and demonstrate the workplace skills that employers desire in their future employees. Students analyze their personal assets, explore career clusters and career pathways, and draft an Academic and Career Plan based on their academic and career interests. Additional areas of focus include planning for academic courses, work-based learning opportunities, opportunities to earn industry certifications, and planning for postsecondary success.

This course is a VDOE required course for grade 7.

Length

Quarter

Grades

7

Schools

Benton Middle School

Bull Run Middle School

Gainesville Middle School

Graham Park Middle School

Lake Ridge Middle School

Marsteller Middle School

Parkside Middle School

Pennington Traditional School

Porter Traditional School

Potomac Middle School

Potomac Shores Middle School

Reagan Middle School

Rippon Middle School

Saunders Middle School

The Nokesville School

Woodbridge Middle School

Computer Science Discoveries 7

This middle school computer science course explores concepts in computer programming. Students are introduced to block-based or text-based programming to review and build on computational thinking and computer science skills. Students also study the history of computers and computer science.

Length

Quarter

Grades

7

Schools

Benton Middle School

Gainesville Middle School

Graham Park Middle School

Lake Ridge Middle School

Marsteller Middle School

Porter Traditional School

Potomac Middle School

Potomac Shores Middle School

Rippon Middle School

Computer Solutions (formerly STEM Solutions)

Students are introduced to computing devices and software as problem-solving tools. Emphasis is placed on using basic touch keyboarding skills to complete a variety of projects incorporating word processing, database, presentation, and spreadsheet software. Basic Internet safety, coding, and device maintenance are components of this course.

Length

Quarter

Grades

6

Schools

Benton Middle School

Gainesville Middle School

Graham Park Middle School

Lake Ridge Middle School

Marsteller Middle School

Porter Traditional School

Potomac Middle School

Potomac Shores Middle School

Reagan Middle School

Rippon Middle School

Digital Technology Foundations (formerly STEM Applications)

This foundation course introduces the use of relevant and emerging technologies, tools, and applications to prepare students for current workplace practices and everyday life. Students will demonstrate information processing using a variety of hardware and software and Internet-based tools to produce and integrate data in various formats. This course is designed for students wishing to progress through more advanced business and information technology coursework.

Length

Semester

Grades

8

Schools

Benton Middle School

Beville Middle School

Gainesville Middle School

Graham Park Middle School

Lake Ridge Middle School

Marsteller Middle School

Porter Traditional School

Potomac Middle School

Potomac Shores Middle School

Rippon Middle School

Family and Consumer Sciences Exploratory 1 (formerly Personal Development)

This Family and Consumer Sciences exploratory course prepares students to become life-ready as they manage individual, family, career, and community roles and responsibilities. Students explore topics related to human development, positive interpersonal relationships, nutrition and wellness, financial literacy, leadership development, and workplace readiness skills.

Length

Quarter

Grades

6

Schools

Benton Middle School

Bull Run Middle School

Gainesville Middle School
Graham Park Middle School
Lake Ridge Middle School
Marsteller Middle School
Parkside Middle School
Porter Traditional School
Potomac Middle School
Potomac Shores Middle School
Reagan Middle School
Rippon Middle School
Saunders Middle School
The Nokesville School
Woodbridge Middle School

Family and Consumer Sciences Exploratory 2 (formerly Life Management)

This Family and Consumer Sciences exploratory course helps students develop essential knowledge and skills to lead better lives, be career-ready, build strong families, and make meaningful contributions to their communities. Students deepen their knowledge and understanding of topics related to human development, interpersonal relationships, nutrition and wellness, financial literacy, leadership skills, and workplace readiness skills.

Length

Quarter

Grades

7

Schools

Benton Middle School
Bull Run Middle School
Gainesville Middle School
Graham Park Middle School
Lake Ridge Middle School
Marsteller Middle School
Parkside Middle School
Porter Traditional School
Potomac Middle School
Potomac Shores Middle School
Reagan Middle School
Rippon Middle School
Saunders Middle School
The Nokesville School
Woodbridge Middle School

Family and Consumer Sciences Exploratory 3 (formerly Life and Career Planning)

This Family and Consumer Sciences exploratory course helps students continue to build on knowledge and skills acquired in previous Family and Consumer Sciences courses to lead better lives, be career-ready, build strong families, and make meaningful contributions to their communities. Students focus on topics related to human development, interpersonal relationships, nutrition and wellness, financial literacy, textiles and apparel, child development, leadership, workplace readiness, and career exploration and planning.

Length

Semester

Grades

8

Schools

Benton Middle School
Bull Run Middle School
Gainesville Middle School
Graham Park Middle School

Lake Ridge Middle School
Marsteller Middle School
Parkside Middle School
Porter Traditional School
Potomac Middle School
Potomac Shores Middle School
Reagan Middle School
Rippon Middle School
Saunders Middle School
The Nokesville School
Woodbridge Middle School

IBMYP Career Investigations

This course helps students identify and demonstrate the workplace skills that employers desire in their future employees. Students analyze their personal assets, explore career clusters and career pathways, and draft an Academic and Career Plan based on their academic and career interests. Additional areas of focus include planning for academic courses, work-based learning opportunities, opportunities to earn industry certifications, and planning for postsecondary success.

Length

Quarter

Grades

7

Schools

Beville Middle School
Fred Lynn Middle School
Hampton Middle School
Unity Braxton Middle School

Notes

Career Investigations is a VDOE required course for grade 7.

IBMYP Computer Science Discoveries 7

This middle school computer science course explores concepts in computer programming. Students are introduced to block-based or text-based programming to review and build on computational thinking and computer science skills. Students also study the history of computers and computer science.

Length

Quarter

Grades

7

Schools

Fred Lynn Middle School
Unity Braxton Middle School

IBMYP Computer Solutions (formerly IBMYP STEM Solutions)

Students are introduced to computing devices and software as problem-solving tools. Emphasis is placed on using basic touch keyboarding skills to complete a variety of projects incorporating word processing, database, presentation, and spreadsheet software. Basic Internet safety, coding, and device maintenance are components of this course.

Length

Quarter

Grades

6

Schools

Beville Middle School
Unity Braxton Middle School

IBMYP Digital Technology Foundations (formerly IBMYP STEM Applications)

This foundation course introduces the use of relevant and emerging technologies, tools, and applications to prepare students for current workplace practices and everyday life. Students will demonstrate information processing using a variety of hardware and software and Internet-based tools to produce and integrate data in various formats. This course is designed for students wishing to progress through more advanced business and information technology coursework.

Length

Semester

Grades

8

Schools

Fred Lynn Middle School

Unity Braxton Middle School

IBMYP Family and Consumer Sciences Exploratory 1 (formerly IBMYP Personal Development)

This Family and Consumer Sciences exploratory course prepares students to become life-ready as they manage individual, family, career, and community roles and responsibilities. Students explore topics related to human development, positive interpersonal relationships, nutrition and wellness, financial literacy, leadership development, and workplace readiness skills.

Length

Quarter

Grades

6

Schools

Beville Middle School

Fred Lynn Middle School

Hampton Middle School

Unity Braxton Middle School

IBMYP Family and Consumer Sciences Exploratory 2 (formerly IBMYP Life Management)

This Family and Consumer Sciences exploratory course helps students develop essential knowledge and skills to lead better lives, be career-ready, build strong families, and make meaningful contributions to their communities. Students deepen their knowledge and understanding of topics related to human development, interpersonal relationships, nutrition and wellness, financial literacy, leadership skills, and workplace readiness skills.

Length

Quarter

Grades

7

Schools

Beville Middle School

Fred Lynn Middle School

Hampton Middle School

Unity Braxton Middle School

IBMYP Family and Consumer Sciences Exploratory 3 (formerly IBMYP Life and Career Planning)

This Family and Consumer Sciences exploratory course helps students continue to build on knowledge and skills acquired in previous Family and Consumer Sciences courses to lead better lives, be career-ready, build strong families,

and make meaningful contributions to their communities. Students focus on topics related to human development, interpersonal relationships, nutrition and wellness, financial literacy, textiles and apparel, child development, leadership, workplace readiness, and career exploration and planning.

Length

Semester

Grades

8

Schools

Beville Middle School

Fred Lynn Middle School

Hampton Middle School

Unity Braxton Middle School

IBMYP Introduction to Technology and Engineering (formerly IBMYP Introduction to Technology)

Students use the engineering design process to guide them through various hands-on activities and projects, utilizing safe use of tools, materials, and techniques to solve problems. Students explore their relationship to technology and engineering, and how technology affects the world around them, as well as careers in the fields of technology and engineering.

Length

Quarter

Grades

6

Schools

Beville Middle School

Fred Lynn Middle School

Hampton Middle School

Unity Braxton Middle School

IBMYP Inventions and Innovations (formerly IBMYP Engineering Innovations)

Students apply the engineering design process to plan, build, and communicate inventions or innovations that address contemporary technological problems facing them, their community, and the world. This hands-on course allows students to apply creativity and innovation that emphasizes working in teams and the safe use of technological and engineering tools and equipment.

Length

Quarter

Grades

7

Schools

Beville Middle School

Fred Lynn Middle School

Hampton Middle School

Unity Braxton Middle School

IBMYP Technological Systems (formerly IBMYP Engineering Systems)

Students will experience the problems and opportunities of our increasingly technological society. The class will provide hands-on learning to explore technologies and the systems of which they are composed. They also explore technology-oriented careers and project-based learning to explore technological systems.

Length

Semester

Grades

8

Schools

Beville Middle School
Fred Lynn Middle School
Unity Braxton Middle School

Introduction to Technology and Engineering (formerly Introduction to Technology)

Students use the engineering design process to guide them through various hands-on activities and projects, utilizing safe use of tools, materials, and techniques to solve problems. Students explore their relationship to technology and engineering, and how technology affects the world around them, as well as careers in the fields of technology and engineering.

Length

Quarter

Grades

6

Schools

Benton Middle School
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Saunders Middle School
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Woodbridge Middle School

Inventions and Innovations (formerly Engineering Innovations)

Students apply the engineering design process to plan, build, and communicate inventions or innovations that address contemporary technological problems facing them, their community, and the world. This hands-on course allows students to apply creativity and innovation that emphasizes working in teams and the safe use of technological and engineering tools and equipment.

Length

Quarter

Grades

7

Schools

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The Nokesville School

Technological Systems (formerly Engineering Systems)

Students will experience the problems and opportunities of our increasingly technological society. The class will provide hands-on learning to explore technologies and the systems of which they are composed. They also explore technology-oriented careers and project-based learning to explore technological systems.

Length

Semester

Grades

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Schools

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