

Middle School Exploring Information Technology

If you've ever dreamed of a job in technology, but aren't sure where to start, then it's time to explore the different career options available to you in the field of IT. You'll examine various IT pathways of web and digital communications, information and support services, network systems, and programming and software development. The world of IT careers is in high-demand, so let's get to investigating which career pathway is right for you.

Unit 1: Stick with IT

Information Technology is an exciting field full of amazing potential for people with all sorts of interests! From programming to web communications to networking to support, there's an IT pathway for almost anyone. You'll learn some cool skills, hard and soft! You'll explore how to stay safe online, and you'll get some practical experience with Google Docs. Ready? Set? Go!

What will you learn in this unit?

- Describe the four pathways in Information Technology
- Identify security and ethics issues in IT
- Develop soft skills that are useful in IT
- Create and edit word processing documents using Google Docs

Unit 2: Communication Inspiration

Web and Digital Communications is all about catching the eye and ear of the user. In our digital age, it's more important than ever to have visually appealing websites. We'll learn some graphic design principles and apply them to our very own website! We will also make a poster advertising a new smoothie shop—yum! And you'll make your TV debut. Well, not exactly. But you will record a video of yourself! Lights, camera, action!

What will you learn in this unit?

- Describe characteristics and skills of careers in the Web and Digital Communications pathway
- Identify major events on the timeline of the internet and web
- Create a non-linear website
- Create a digital publication using publishing software
- Communicate effectively using audio/video software

Unit 3: Insider Information

Data is everywhere! Some would say it makes the world go 'round. So what do we do with all this data that becomes information? How do we manage it and use it? Welcome to the field of Information Support and Services! You'll learn what careers are available in this pathway as well as what skills are required. Then you'll broaden your understanding of hardware and software, with some file and storage management techniques thrown in. And finally, you'll roll up your sleeves and get to work creating your own database, which you'll use to predict the future! Cool!

What will you learn in this unit?

- Identify careers and skills in the Information Support and Services pathway
- Identify, understand, and use hardware, software, file systems, and storage methods
- Apply troubleshooting techniques

- Create and edit a database
- Use data to analyze trends and predict future possibilities

Unit 4: Making the Connection

Networks allow us to communicate with people across the world. They have transformed the way that companies do business as well as the way people live their lives. The Network Systems pathway is a very hot field to go into right now. We'll cover all the networking essentials and throw in some practical skills too. By the end of the unit, you'll know what networking positions are available and how to develop a resume and job application to eventually snag a position of your own!

What will you learn in this unit?

- Define and understand how networking technology is used
- Identify common network jobs and the skills required in those positions
- Use networking tools and commands like ping and traceroute
- Describe how to conduct a parliamentary meeting
- Develop a resume and apply for a job online

Middle School Exploring IT Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first half of the course

Note: You will be able to open this exam only one time.

Unit 5: Coding 101

The software development industry is growing like crazy! There are more than 1.3 million programmers and software developers in the United States alone. Software is a multi billion-dollar industry, and it's not showing any signs of slowing down. Get ready to learn the knowledge and basic skills you'll need as a programmer. You'll find out what careers are in this field and how to find a work-based learning experience in IT. And you'll become the quizmaster by creating your very own quiz game in Python!

What will you learn in this unit?

- Identify skills, characteristics, and technology of the Programming and Software Development pathway
- Describe the phases of the software development life cycle
- Plan and create programs using Python
- Understand the connection between mathematical skills and coding
- Explore work-based learning opportunities

Unit 6: What's in Your Toolbelt?

Do you know how to communicate? Of course you do! You've been talking for most of your life. But good communication involves more than just talking. In this unit, we'll learn how to send professional emails and instant messages. We'll conduct a research inquiry and present our findings. We'll learn about improving touch typing. We'll create a business report, spreadsheet, and chart. Let's communicate and learn about some useful tools!

What will you learn in this unit?

- Send professional emails and use the internet to communicate effectively
- Identify and define a research topic
- Create a research plan
- Improve typing techniques
- Create a spreadsheet using Google Sheets

Middle School Exploring IT Final Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the entire course

Note: You will be able to open this exam only one time.

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