IT Fundamentals

Teaching Guide

Lessons

The lessons follow the CompTIA IT Fundamentals (FC0-U61) objectives and are broken down into 66 individual lessons. Every lesson contains a summary PowerPoint which teachers can use to guide the students through the content. The PowerPoint lessons were created to be presented to students with the teacher explaining/guiding the students through each slide. The PowerPoints are not meant to take up an entire class period; teachers should be able to combine several related PowerPoint lessons into a single class period.

Teacher Notes

Every PowerPoint lesson has a Teacher Notes document to go along with the lesson. These Teacher Notes are intended to be used to provide background and explain the different concepts for the teacher who will be guiding the class. It is up to the teacher's discretion whether to share these notes with students.

Activities (Resources)

The Labs are hands-on lab exercises in the form Python activities or other guided activities on different systems. The Python activities use Python to show the basics of programming and walk the students through different scripts and challenges. The labs use the Python environment Thonny, although Thonny is not required to run these labs, it is a free software that can be installed on all operating systems. All non-programming labs can be done on all three operating systems, Windows, macOS, or Linux.

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Scenarios (Resource)

Some lessons have scenarios which involve a real-world example of a problem that could be brought to an IT department. The teacher will explain the problem the person is having with their system to the students as well as some research for the problem. The students will then attempt to solve the issue as they go through different possible solutions for the issue. The Troubleshooting Methodology document, under support materials, is meant to accompany each scenario. The students will not only learn about potential problems the IT world faces, but they will also get practice using the troubleshooting methodology.

Quizzes

All 66 lessons have an assessment, or quiz questions in either multiple choice, multiple selection, or true/false format. Quizzes are provided in Word format for easy modification for classroom use. Quizzes are also provided in QTI format for easy import into most modern, robust Learning Management Systems (LMS) like Google Classroom, Moodle, etc.

Support Materials

In the support materials, there is the *Teaching Guide* (this document) which helps explain how the course is laid out and helps explain the purpose of the content to educators.

There are also Activity and Scenario Study description documents. These guides are meant to explain the purpose of each activity and scenario to help teachers determine which activities/scenarios are suitable and beneficial to their students and/or if they are capable of running that particular activity.

Lastly, there is a link to the *CompTIA IT Fundamentals FC0-U61 Certification Objectives* that the IT Fundamentals course is aligned to.

IT Fundamentals Exam and Standards Alignment

CYBER.ORG chose to align this course to the CompTIA IT Fundamentals certificate because is it not only an industry-recognized certification, but also a great foundation for CYBER.ORG's Information Technology and Cybersecurity courses. At the end of the course, students may opt to take the CompTIA IT Fundamentals exam to become certified. This will allow students to obtain an industry-accepted certification, as well as make them more marketable as they pursue careers after high school.

For additional assistance in aligning CYBER.ORG's IT Fundamentals course (CompTIA IT Fundamentals Objectives) to your state's standards, or for help verifying if IT Fundamentals is a CTE course in your state, please reach out to Joe MacAdam at joe.macadam@cyber.org. For any additional questions, please contact the CYBER.ORG team: info@cyber.org .

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