



## The First Academy Lower School Computer Science

### COMPUTER SCIENCE

#### VISION

As a result of TFA's Computer Science Curriculum, students will utilize technology to conduct research, increase productivity, perform basic operations, facilitate communication, and engage in problem solving and decision-making. Students will recognize their personal responsibility in the use and application of technology as a medium of Truth. The TFA student is proficient within the Language Arts arena and applies the skills and strategies within other curriculum areas. Students will understand the benefits and cautions that technology currently presents.

#### STANDARDS

*What a TFA student will know and be able to do in Computer:*

- Demonstrate awareness of computer systems, i.e., input, process, and output
- Identify the functions of basic computer hardware and software and peripheral devices
- Operate a computer for varied educational purposes
- Demonstrate awareness of telecommunications concepts
- Analyze varied tasks and problems to determine when technology is useful and select the appropriate tool(s) and technology resource(s) to address those tasks and problems
- Demonstrate awareness of the impact of technology on careers and society and the need for its ethical use
- Demonstrate awareness of personal and occupational uses of computers and other technology
- Produce a document using basic skills in an appropriate word processing program
- Set up a spreadsheet file; organize and analyze collected data; and produce reports
- Set up a database file; organize and analyze collected data; and produce reports
- Manipulate graphic images using varied applications  
(Florida Sunshine State Standards)
- Apply basic operations and concepts that demonstrate a sound understanding of the nature and proficiency in the operation of technology
- Exercise social and ethical responsibility in regard to technology cognizant of the human issues impacted by biblical principles relevant to information technology
- Apply technology productivity tools, perhaps in collaborative settings to enhance learning, increase productivity, and promote creativity

- Use technology communication tools to collaborate, publish, and reach audiences through a variety of media and formats
- Employ technology research tools to locate, evaluate, and collect information from a variety of sources, to process data and select resources and innovations appropriate to specific tasks.
- Use technology to solve real-world problems and make informed decisions  
*[Informed by International Society for Technology in Education - National Educational Technology Standards for Students] CHCA*

***Kindergarten Topics:*** Basic skills using mouse / keyboard, locate letters on keyboard, recognize human creativity is extension of God the Creator, introduce paint / drawing program tools; technology vocabulary grade appropriate; problem-solving / decision-making with applications software.

***First Grade Topics:*** Basic skills with computer components; Identify input / output devices, name, save, print file; use keys for right/left hand; uses of technology in home, school, workplace; create/save pictures; use word processing to create text; use hyperlinks via EBL intranet.

***Second Grade Topics:*** Log on/off from generic account; identify storage devices; input data using correct fingering, shift key to capitalize; name/save file to location; use graphing application to record research results; format text/add graphics to Word document; create slides in presentation application include text / graphics; research uses teacher-selected websites; identify software used for purposes; introduction to desktop publishing.

***Third Grade Topics:*** Proper fingering for letters, shift key, space bar, enter key; terms for peripherals; save/retrieve files to network folder; identify misuses of technology in society, how to safeguard privacy; simple presentation of multiple slides with text and graphics; desktop publishing for publications and displays; websites on EBL intranet; search tools for research; graphing application, spreadsheet; online class project.

***Fourth & Fifth Grade Topics:*** Basic understanding of school network; basic troubleshooting skills; scan/save pictures for projects; respect others using computers; content area multimedia product; author multiple paragraph text with Word; desktop publishing for brochures/publications; photo editing uses; web page creation in content area; online project; Internet research; simple programming language; software for varying purposes. Internet safety.  
(CHCA)