

Goals and Standards

NETS

National Education Technology Standards

These are some of the goals which the consortium of National Educational Technology Standards deems important for students of computers. CPU 1 can help you address the following goals:

1. Basic operations and concepts
 - a. Can demonstrate a sound understanding of the nature and operation of technology systems
 - b. Is proficient in the use of technology
2. Social, ethical and human issues
 - a. Practices responsible use of technology systems, information, and software
 - b. Develops positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits and productivity
3. Technology productivity tools
 - a. Uses technology tools to enhance learning, increase productivity and promote creativity
4. Technology communications tools
 - a. Uses a variety of media and formats to communicate information and ideas effectively to multiple audiences.
 - b. Students use telecommunications to collaborate, publish and interact with peers, experts and other audiences
5. Technology research tools
 - a. Uses technology to locate, evaluate and collect information from a variety of sources.
6. Technology problem-solving and decision-making tools
 - a. Uses technology resources for solving problems and making informed decisions.
 - b. Employs technology in the development of strategies for solving problems in the real world.

National 4-H Technology Goals

In 2002 the National 4-H Technology Design Team released a report titled "4-H Youth Technology Leadership: A National Vision with Recommendations for the 21st Century 4-H Youth Development Programs." Here are some of the goals:



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| <p>Goal 1. 4-H youth are active leaders in their communities, guiding the way to integration of technology in all areas of life.</p> <p>Goal 2. 4-H youth act as catalysts in identifying emerging technologies and integrating these technologies into new and existing 4-H programs.</p> <p>Goal 3. All 4-H participants have access to technology facilities and resources.</p> <p>Goal 4. 4-H uses technology to increase involvement and usability by diverse groups.</p> <p>Goal 5. 4-H youth and adults work in collaboration to increase technology literacy in their communities, counties and states.</p> <p>Goal 6. The 4-H educational program is a model up-to-date curriculum reflecting both integration of technology and experiential learning principles.</p> <p>Goal 7. 4-H has established minimum technology competencies that all participants can achieve through their involvement in 4-H.</p> | <p>Goal 8. 4-H promotes personal growth, emphasizing the development of good judgment and understanding in the use of technology.</p> <p>Goal 9. 4-H provides opportunities to access innovative technologies, up-to-date resources, useful applications and exceptional people and their practices.</p> <p>Goal 10. 4-H models the effective and innovative use and application of information technologies to facilitate its adoption in 4-H programs and their communities.</p> <p>Goal 11. 4-H staff, volunteers and youth are encouraged to learn about new technologies and integrate them into ongoing programs.</p> <p>Goal 12. 4-H materials effectively use technology for communication and learning.</p> |
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CPU 1 - Inside the Box

Activity	Success Indicator	Life Skill	NETS*
Tools of the Trade	Assembles a computer toolkit	Planning and Organizing	1.a.
Parts and Ports	Identifies external hardware components	Workforce Preparation	1.a.
Under the Hood	Identifies parts inside the computer	Workforce Preparation	1.a.
Deconstruct/ Reconstruct	Takes apart and reassembles a computer	Decision Making	1.a.
The Math Behind the Magic	Can count in varying numeric systems	Workforce Preparation	1.a.
Is There a Doctor in the House?	Creates a troubleshooting flow chart	Problem Solving	6.a.
The Mind Inside the Machine	Compares operating systems	Decision Making	6.a.
Let Freedom Ring!	Explores open source resources	Decision Making	3.a.
Computer Brain Surgery	Installs an operating system	Workforce Preparation	6.b.
More Tools of the Trade	Collects software tools for computer	Problem Solving	6.b.
So, Doc...	Make decisions about repairing vs. replacing computers	Decision Making	2.a.
What Comes Around Goes Around	Makes responsible decisions about computer waste	Problem Solving	6.b.
Computers 2050	Designs their ideal future computer	Planning, Organizing	2.b.

CPU 2 - Peer to Peer

Activity	Success Indicator	Life Skill	NETS*
Getting Connected to the Big Picture	Creates a plan for establishing a network	Responsibility	6.a.
Cables and Connectors	Identifies computer's external network capabilities	Workforce Preparation	1.a.
It's What's on the Inside that Counts	Identifies computer's internal network capabilities	Workforce Preparation	1.a.
Wire or Wave?	Makes decisions about wireless networking	Decision Making	1.a.
Design and Document	Diagrams and connects a network	Responsibility	6.a.
It Starts With an Address	Locates a computers IP address	Workforce Preparation	5.a.
We're Just Here to Serve!	Identifies different types of servers on a network	Decision Making	5.a.
Protocols and Conventions	Identifies different protocols and their purposes	Workforce Preparation	5.a.
Is There Anybody Out There?	Communicates with other computers on a LAN	Responsibility	2.a.
It's All Under One Roof	Adds and shares a network peripheral	Responsibility	3.a.
The Wicked Wave	Makes decisions about network security	Decision Making	6.b.
Hackers or Heroes	Distinguishes between ethical and unethical programming practices	Responsibility	2.b.
Über World!	Self monitors use of collaborative tools	Workforce Preparation	4.b.
LAN Party Time!	Plans and hosts a LAN party	Responsibility	2.b.



CPU 3 - Teens Teaching Tech

Title	4-H Tech Goals*	Life Skill	Success Indicator
Building a Buddy System	5	Teamwork	Identifies adult partners
Bridge the Digital Divide	1	Concern for others	Discerns community technology needs
Who's Got Your Back?	1	Developing teamwork	Sets goals with peers
Tools of the Trade	2	Planning and organizing	Identifies organizations with parallel goals
Establishing Über-Geek Headquarters		Teamwork	Youth contacts potential community partners
With a Little Help from My Friends	12	Planning and organizing	Creates an activity plan
A Lasting Impression		Planning and organizing	Prepares and evaluates an introductory meeting
Sharing What We Know	4	Concern for others	Identifies and supports differences
Making Magic for the Munchkins	4	Concern for others	Identifies and supports differences
Bridges Beyond Words	4	Concern for others	Identifies and supports differences
Download What?	8	Planning and organizing	Identifies risks, takes appropriate actions
Who's Flying This Thing?	8	Teamwork	Schedules lab maintenance
Going National	11	Teamwork	Communicates with other tech teams
Now What?	10	Planning and organizing	Strategizes for sustainability

CPU - Newbie Know-How

Scope and Sequence Grid of Activities, Life Skills and National Standards			
Activity	Computer Skill	Life Skill	National Education Technology Standards*
What's all this Stuff?	Identify components of a computer	Organizing Information	1
Visit Über Headquarters	Operates a web browser	Organizing Information	3
Truth or Dare	Thinks critically about mass media	Decision Making	2
Search It	Effectively uses a search engine	Marketable Skills	5
Communicated It	Effectively uses a network to communicate	Communication	4
Protect It	Identifies personal actions that may put computers at risk	Decision Making	2
Preserve It	Saves files	Organizing Information	1
Place It	Organizes files	Organizing Information	1
Write It	Use application software to improve products	Marketable skills	3
Calculate It	Use application software to improve products	Marketable skills	3
Picture It	Use application software to improve products	Marketable skills	3
Present It	Synthesizes information to present an idea	Communication	4
Just Do It....Again	Practices presentation before delivery	Communication	4