

National Educational Technology Standards (NETS) for Students

8th Grade Performance Indicators. Students will:

| | Tier 1: Personal use and communication | Tier 2: Access, collect, manage, integrate, and evaluate information | Tier 3: Solve problems and create solutions |
|--|--|---|---|
| | Students in all tiers will use technology to build and share knowledge and to improve and enhance learning in all subject areas and experiences. | | |
| | This tier focuses on students using technology to complete school work and for personal use. | This tier involves students using technology for research and/or public presentations. | This tier involves students using technology for authentic problem-solving and creating products. |
| 1. Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. (NETS 1) | Students know how to connect and use a wide variety of input and output devices and common peripherals and how to access networked resources (e.g., connect a mouse, keyboard, portable storage device, or digital camera to the computer, connect to a shared network drive). | ** | Students demonstrate understanding of strategies for identifying, solving, and preventing routine hardware and software problems that occur during everyday technology use (e.g., can problem-solve when a web page is non-responsive, force-quit a non-responsive program) |
| 2. Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society. (NETS 2) | ** | ** | Students recognize, discuss, and analyze changes in information technologies and the effect those changes have on the workplace, society, and/or themselves (e.g., understand the implications of Moore's Law, difference between data and knowledge). |
| 3. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (NETS 2) | Students are acquainted with the legal and ethical issues related to use and misuse of information and communication technology (e.g., follow the school/district's Acceptable Use Policy). | Students demonstrate understanding of issues related to acceptable and responsible use of information and communication technology such as privacy, security, copyright, file sharing, plagiarism, issues of personal safety (e.g., correctly formatted citations for copyrighted materials). | Students identify and develop scenarios or examples that illustrate ethical behaviors for use of copyrighted media and analyze the consequences of unethical use of information and communication technology (e.g., hacking, spamming, consumer fraud, virus setting, intrusion). |
| 4. Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. (NETS 3 & 5) | Students apply common software features to promote productivity (e.g., use spellchecker, thesaurus, create basic spreadsheet charts, and insert media). | Students select and use information and communication technology tools and resources to collect, evaluate and manage information and report results on an assigned hypothesis or research question (e.g., gather and record data from scientific probes, using content-specific web resources). | Students define problems or essential questions, then use and/or adapt content-specific technological tools to gather data, visualize information, or conduct investigations (e.g., access primary source data to refute or support an original hypothesis, create and conduct surveys and analyze results). |
| 5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum. (NETS 3 & 6) | Students use specific tools to support personal productivity and enhance learning in different subjects (e.g., keyboard effectively to a minimum level, use word processing and other productivity software to prepare assignments). | ** | Students work individually or in teams to use hardware and software tools to support learning and creativity in all subject areas. (e.g., use personal information management (PIM) software, personal digital assistants (PDAs), concept-mapping software, timeline development software, digital still and video cameras, probes, graphing calculators, digital microscopes). |

**Performance Indicator does not apply to this tier.

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| 6. Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. (NETS 4, 5, & 6) | ** | Students create, publish and/or present products for an assigned project (e.g., <i>create effective PowerPoint or digital video presentations, post webpages of class work</i>). | Students initiate projects, design and develop content, and construct web-based and/or other electronic products (e.g., <i>construct and publish a WebQuest, create a Flash movie</i>). |
| 7. Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. (NETS 4 & 5) | ** | Students use telecommunications tools to access or exchange information for an assigned project (e.g., <i>e-mail a subject-matter expert</i>). | Students work collaboratively using technology to develop and share ideas or information (e.g., <i>use web-based collaborative tools such as wikis, discussion boards, weblogs; use interactive whiteboard for classroom brainstorming</i>). |
| 8. Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. (NETS 5 & 6) | Students select from a limited set of technology tools to complete assigned work (e.g., <i>use a spreadsheet to represent data</i>). | Students select from a variety of teacher-defined technology tools to solve specific problems or present results (e.g., <i>choose between PowerPoint and iMovie to present information to the class</i>). | Students identify, evaluate, and select appropriate technology tools to solve problems or create products (e.g., <i>based upon a desired end-product, some students select MovieMaker to create a video presentation while others select Publisher to create a brochure</i>). |
| 9. Demonstrate an understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving. (NETS 1 & 6) | Students understand basics of file storage, file formats, and networking (e.g., <i>understand the use of "save as" to change file format; back up files regularly</i>). | ** | Students explore various ways that information and technology resources can be combined, personalized, or re-purposed to develop and promote understanding (e.g., <i>edit content and change format of audio file to create a podcast</i>). |
| 10. Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. (NETS 2, 5, & 6) | Students apply search strategies to find relevant online information (e.g., <i>conduct a Boolean search to find information for an assignment</i>). | Students search, collect, and evaluate the accuracy and relevance of information from electronic resources (e.g., <i>check the credentials of the online source or look for supporting evidence</i>). | Students evaluate information from a variety of electronic resources for appropriateness, comprehensiveness, and bias (e.g., <i>understand the potential bias of a sponsored link</i>). |

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