



# **NETS for Teachers: Achievement Rubric**

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**Purpose:** This draft version of the NETS for Teachers: Achievement Rubric is available online for educational technology professionals to review and provide feedback to the developers.

**More information:** If you have questions about the rubric, please contact the developers at [netsrubric@learningpt.org](mailto:netsrubric@learningpt.org).

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## NETS for Teachers: Achievement Rubric

NETS for Teachers I	Novice	Basic	Proficient	Advanced
<p>A. Demonstrate knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Educational Technology Standards for Students).</p>	<p>A1. Teachers <b>identify functions of the computer describing access, control, and use</b> of classroom computer hardware including input devices (e.g., keyboard, track-pad, and mouse), output devices (e.g., monitors and printers), and internal and external storage options (e.g., hard drive, floppy drive, portable drive, compact disks).</p> <p>A2. Teachers <b>describe general uses of</b> computer-based curriculum materials; applications programs (e.g., word processor, drawing program, presentation software, e-mail); online reference materials; Internet browser; and school administrative reporting software.</p> <p>A3. Teachers <b>identify graphical user interface (GUI) functions represented by menus, symbols, and icons</b> commonly used to navigate and control computer- and Internet-based curriculum software; and identify drawing, editing, menu selection, or other options within a program.</p>	<p>A1. Teachers <b>identify and use</b> common peripheral devices found in the classroom (e.g., printer, monitor, scanner, digital camera, video projector) and <b>describe how to locate information</b> on uses, care, and basic maintenance of these classroom technology resources.</p> <p>A2. Teachers <b>describe teacher and student uses</b> for application software; network-based curriculum resources; spreadsheets, database, and e-mail application software; and common utilities software.</p> <p>A3. Teachers <b>identify and apply</b> GUI menu options to select, create, edit, manage and maintain computer files on a hard drive, floppy disk, or networked location.</p>	<p>A1. Teachers <b>compare and evaluate hardware components and software resources</b> used to provide access to local area networked curriculum materials, Web resources, and multimedia resources (e.g., computer system, printers, monitors, video projectors, external drives, scanners, digital cameras, speakers, browsers, plug-ins, media players, movie, photo, and music utilities).</p> <p>A2. Teachers <b>identify, describe, and solve</b> simple hardware, software, and networking problems that occur during everyday use and know how to clearly <b>communicate</b> more serious technical difficulties, need for support, or technical assistance to appropriate technical staff.</p> <p>A3. Teachers <b>recognize, manage, and maintain</b> computer files in a variety of different media and formats on a hard drive, network, and Web location.</p>	<p>A1. Teachers <b>know how to connect and use</b> common peripherals, <b>identify and describe</b> uses, advantages, and challenges for advanced resources (e.g., digital probes, artificial intelligence, virtual reality, simulations) and advanced network resources (e.g., compressed video, video server, video conferencing software, and Web casting).</p> <p>A2. Teachers <b>know how to access and use</b> help desks, online help, and user documentation to recognize common hardware or software and network problems.</p> <p>A3. Teachers <b>select advanced utilities</b> (e.g., compression, antivirus, <b>spam blocker</b>) based on specific system needs.</p>

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B. Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.	B. Teachers <b>select</b> school, district, university, or online professional development opportunities based on the ISTE National Educational Technology Standards for Teachers and <b>develop</b> a plan for their own professional growth.	B. Teachers <b>select and use correct terminology</b> to describe functions of current and emerging hardware, software, and network-related resources used for classroom settings.	B. Teachers <b>research</b> emerging hardware, software, and network-related resources reported by current news, periodicals, and Internet resources, and at professional meetings and <b>involve students in investigating and assessing</b> possible effects of evolving technologies on education and jobs.	B. Teachers <b>identify</b> emerging technology resources and <b>formulate strategies for acquisition and use</b> of emerging technologies with a convincing degree of educational potential.
<b>NETS for Teachers II</b>	<b>Novice</b>	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
A. Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.	A. Teachers <b>identify</b> developmentally appropriate technology-based learning resources that address content standards, technology standards, and individual learner needs.	A. Teachers <b>select and use</b> appropriate technology resources to enhance individual student academic performance and technology literacy.	A. Teachers <b>know how to plan and implement technology-based learning activities</b> that promote student engagement in analysis, synthesis, interpretation, and creation of original products.	A. Teachers <b>know how to apply</b> information and communication <b>technology to gather and analyze data that will drive planning</b> of learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
B. Apply current research on teaching and learning with technology when planning learning environments and experiences.	B. Teachers <b>identify research and learning theories</b> and <b>describe</b> their application to teaching and learning with technology.	B. Teachers <b>predict potential</b> of specific technology, software, teaching strategies, or environmental factors to contribute positively to student learning <b>based on established educational research</b> .	B. Teachers <b>use research</b> on teaching and learning with technology <b>to inform their planning</b> of technology-based learning environments and experiences.	B. Teachers <b>identify or describe how</b> involvement in or results of classroom-based action research, case studies, surveys, focus groups, or experimental studies of technology-based learning environments and experiences changed or affirmed their planning, teaching, or assessment practices.

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C. Identify and locate technology resources and evaluate them for accuracy and suitability.	C. Teachers <b>select</b> technology resources based on alignment of content to curriculum, developmental level, accuracy, and suitability to the student needs.	C. Teachers <b>describe criteria for evaluation</b> of a variety of technology resources for accuracy, appropriateness, comprehensiveness, and bias.	C. Teachers <b>identify</b> activities designed to engage students in researching a variety of technology resources and evaluating the resources for accuracy, appropriateness, comprehensiveness, and bias.	C. Teachers <b>evaluate plans</b> for managing available technology resources, providing equitable access for all students, and <b>improving student academic achievement and technology literacy</b> across content areas.
D. Plan for the management of technology resources within the context of learning activities.	D. Teachers <b>identify resource management strategies</b> that are appropriate to student developmental levels.	D. Teachers <b>develop and implement plans</b> that facilitate student-centered learning activities in which students apply curriculum-related technology resources.	D. Teachers <b>describe development process for managing</b> available technology resources to facilitate improvement of student academic achievement and technology literacy.	D. Teachers <b>engage in ongoing planning of lesson sequences that effectively integrate technology resources</b> and are consistent with current best practices for integrating the learning of subject matter and student technology standards.
E. Plan strategies to manage student learning in a technology-enhanced environment.	E. Teachers <b>identify technology management strategies</b> .	E. Teachers <b>know how to plan</b> student-centered learning activities that facilitate access to technology resources for all students.	E. Teachers <b>associate technology management issues and related solutions</b> to inform planning of technology, enhanced teaching, learning, and communications activities.	E. Teachers <b>explain benefits and limitations of collaborative planning</b> for management of technology-based learning activities.
<b>NETS for Teachers III</b>	<b>Novice</b>	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
A. Facilitate technology-enhanced experiences that address content standards and student technology standards.	A. Teachers <b>identify</b> technology-enhanced experiences related to the subject area.	A. Teachers <b>align</b> learning activities with curriculum standards and <b>identify related technology resources</b> to support content learning.	A. Teachers <b>know how to facilitate learning experiences that integrate both content and technology standards</b> to improve student academic achievement and technology literacy.	A. Teachers <b>know how to facilitate learning experiences that integrate technology</b> to improve student academic achievement and technology literacy by connecting curriculum standards with technology standards <b>across subject areas and grade levels</b> .

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B. Use technology to support learner-centered strategies that address the diverse needs of students.	B. Teachers <b>identify and use grade-level appropriate content resources</b> using technology as a mode of presentation.	B. Teachers <b>select and use</b> technology resources and content-specific tools (e.g., simulations, mathematical software, Web tools) that support learner-centered strategies and address the diverse needs of learners.	B. Teachers <b>apply strategies for engaging students with diverse needs</b> , using a variety of instructional and grouping strategies (e.g., whole group, collaborative, individualized) and supporting individual learner needs with specialized technology resources for content learning.	B. Teachers <b>know how to use a variety of instructional and grouping strategies</b> (e.g., whole group, collaborative, individualized) to support learner-centered activities that integrate technology resources and engage students with diverse needs in learning across content areas and grade levels.
C. Apply technology to develop students' higher order skills and creativity.	C. Teachers <b>identify activities</b> in which their students can apply higher order thinking skills.	C. Teachers <b>select and use technology resources to facilitate student use of higher order thinking skills</b> (e.g., problem solving, critical thinking, informed decision making, knowledge construction, creativity) <b>through team and individual activities</b> .	C. Teachers <b>identify strategies for student use of technology designed to facilitate higher order thinking skills</b> (e.g., problem solving, critical thinking, informed decision making, knowledge construction, and creativity) <b>focused on curriculum-related goals</b> .	C. Teachers <b>know how to</b> implement learning activities that <b>apply technology to promote student engagement in analysis, synthesis, interpretation, and creation of original products</b> .
D. Manage student learning activities in a technology-enhanced environment.	D. Teachers <b>manage strategies for use, care, and sharing</b> of technology resources to students.	D. Teachers <b>know how to select and use</b> technology resources that develop student content area knowledge and technology literacy.	D. Teachers <b>apply technology-based strategies</b> to collect resources that develop content-area knowledge and technology literacy.	D. Teachers <b>facilitate student use of technology</b> to address social needs and cultural identity and promote interaction with the global community.
<b>NETS for Teachers IV</b>	<b>Novice</b>	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
A. Apply technology in assessing student learning of subject matter using a variety of assessment techniques.	A. Teachers <b>apply technology for record-keeping resources for student grades and for developing assessment resources</b> such tests and rubrics.	A. Teachers <b>select and use specialized software</b> (e.g., electronic gradebooks, assessment software, check sheets, performance profiler, performance rubrics) <b>to collect and report data on student learning</b> in the content areas.	A. Teachers <b>evaluate specialized software</b> and applications to collect, analyze, and report data; create graphs of class and individual performance data; identify areas of individual student strengths and weaknesses in content-area learning; <b>and use results to improve teaching strategies</b> .	A. Teachers <b>collect, analyze, and report data</b> on student performance from multiple measures over time, and apply strategies for <b>use of data to improve planning, instruction, and management</b> .

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B. use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.	B. Teachers <b>use technology resources to collect and analyze student performance data</b> from a variety of resources, identify strengths and areas of weakness, and adjust teaching to improve student learning.	B. Teachers <b>know how to use specialized software</b> (e.g., electronic gradebooks, assessment software, check sheets, performance profiler, performance rubrics) <b>to collect data on student learning</b> .	B. Teachers <b>know how to</b> analyze, interpret, represent, and communicate results from specialized software regarding student content learning.	B. Teachers <b>know how to use results of analysis</b> to inform planning for instructional practice <b>across content areas and to maximize student learning</b> .
C. Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.	B. Teachers <b>identify strategies for assessing students' uses of technology resources</b> .	C. Teachers <b>identify multiple measures</b> for assessing specific applications of technology resources.	C. Teachers <b>design formative and summative assessment strategies</b> for evaluating appropriate student use of technology for content-area learning, communication, and productivity.	C. Teachers <b>know how to guide students in applying self-assessment and peer-assessment strategies</b> to evaluate a variety of technology products and the processes used to create those products across content areas and grade levels (e.g., electronic portfolios).
<b>NETS for Teachers V</b>	<b>Novice</b>	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
A. Use technology resources to engage in ongoing professional development and lifelong learning.	A. Teachers <b>know common uses</b> of information and communication technology in daily life, some <b>advantages and disadvantages</b> of technology use, and can identify technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.	A. Teachers <b>design a plan, based on self-assessment, for their own professional growth</b> to stay abreast of new and emerging technology resources that support enhanced learning for PK–12 students.	A. Teachers <b>identify and engage in technology-based opportunities for professional education and lifelong learning</b> including use of distance education.	A. Teachers <b>identify emerging technologies that could support ongoing professional development and lifelong learning</b> , such as virtual collaborations with peers and experts, and develop plans for long-term professional growth supported by emerging technologies.
B. Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.	B. Teachers <b>know how to navigate</b> the Web and <b>use technology resources</b> such as CD-ROMs (reference or educational software) and common databases (library catalogs, online archives) <b>to inform decisions regarding the use of technology to support student learning</b> .	<b>B. Teachers apply online and other resources</b> to facilitate higher order and complex thinking skills, including problem solving, critical thinking, informed decision making, knowledge construction, and creativity support problem solving and related decision making for maximizing student learning.	B. Teachers <b>know how to conduct advanced Internet searches</b> using Boolean logic and other advanced search strategies; and <b>how to evaluate information from a variety of sources to inform decisions</b> regarding the use of technology in support of student learning.	B. Teachers <b>know how to locate, select, and use advanced technology resources</b> such as expert systems, intelligent agents, and real-world models and simulations to inform decisions regarding the use of technology in support of student learning.

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C. Apply technology to increase productivity.	C. Teachers <b>know how to</b> create, retrieve, save, use spell check and edit word processing documents, spreadsheets, and presentations.	C. Teachers <b>know how to use common software features</b> such as menus and toolbars to format (i.e., grammar check, thesaurus, etc.) word processing documents, spreadsheets, and presentations.	C. Teachers <b>know how to design, create, and populate</b> a database and perform queries to process data and report results inform decisions regarding the use of technology in support of student learning.	C. Teachers <b>know how to formulate a hypothesis or research question</b> regarding the use of technology in support of student learning, and design, create, and populate a database to process data and report results.
D. use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.	D. Teachers <b>know how to</b> manipulate pictures, images, and charts in word processing documents, spreadsheets, and presentations designed to communicate with peers, parents, and the larger community and nurture student learning.	D. Teachers <b>identify and use common software and utilities</b> used to create, open, and edit pictures, images, and charts for use in models, publications, and other professional works in word processing documents, spreadsheets, and presentations to develop documents that effectively communicate with peers, parents, and the larger community and to nurture student learning.	D. Teachers <b>describe and apply advanced software features</b> (e.g., style sheets, mail merge, slide master, etc.) templates and styles to improve the appearance of word processing documents, spreadsheets, and presentations used in communications with parents, professional colleagues, school administrative leadership, and others.	D. Teachers <b>know how to read, send, and manage</b> electronic messages and distribution lists; and how to use advanced multimedia authoring tools to <b>plan, create, and edit</b> models, publications, and other professional works developed in collaboration with peers to communicate with peers, parents, and the larger community in order to nurture student learning.
<b>NETS for Teachers VI</b>	<b>Novice</b>	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
A. Model and teach legal and ethical practice related to technology use.	A. Teachers <b>identify legal and ethical issues</b> related to use of information and communication technology (e.g., privacy, security, copyright, file-sharing, plagiarism).	A. Teachers <b>describe content of acceptable use policy</b> designed to address issues related to legal and ethical use of information and communication technology for the school and classroom (e.g., privacy, security, copyright, file-sharing, plagiarism).	A. Teachers <b>discuss issues related to legal and ethical use of information and communication technology</b> (e.g., privacy, security, copyright, file-sharing, plagiarism), and <b>identify strategies for implementing acceptable use policies</b> in the classroom and school.	A. Teachers <b>discuss the costs and consequences</b> of illegal and unethical use of information and computer technology (e.g., hacking, spamming, consumer fraud, virus setting), the <b>implications of emerging technologies</b> for acceptable use policies, and the <b>importance of following the guidelines for acceptable use.</b>

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<p>B. Apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.</p>	<p>B. Teachers <b>identify titles or locations of software and web resources</b> that support communication, collaboration, personal productivity, and lifelong learning for all students.</p>	<p>B. Teachers <b>discuss how the digital divide affects student learning</b> and how information and communication technology can support collaboration, personal productivity, and lifelong learning for all students.</p>	<p>B. Teachers <b>know how to apply</b> technology resources in the school to help close the digital divide and discuss how information <b>and</b> communication technology can <b>support</b> collaboration, personal productivity, and lifelong learning for all students.</p>	<p>B. Teachers <b>know</b> current trends in information and communication technology and <b>discuss</b> how emerging technologies could help close the digital divide and support collaboration, personal productivity, and lifelong learning for all students.</p>
<p>C. Identify and use technology resources that affirm diversity</p>	<p>C. Teachers <b>identify technology resources and activities</b> that help children develop accepting attitudes toward students of different backgrounds, races, religions, or national origins.</p>	<p>C. Teachers <b>describe grouping strategies and technology enhanced global resources</b> to help students recognize positive characteristics and likenesses among people across the globe.</p>	<p>C. Teachers <b>know how to facilitate</b> students’ use of technology that addresses their social needs and cultural identity and promotes their interaction in the global community.</p>	<p>C. Teachers <b>evaluate accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic resources</b> when selecting technology-based materials or Web sites for use by students.</p>
<p>D. Promote safe and healthy use of technology resources.</p>	<p>D. Teachers <b>identify health and safety issues</b> relating to use of information and communication technology (e.g., electrical wires, rolling chairs, eye strain, poor posture).</p>	<p>D. Teachers <b>model and identify safe and responsible classroom procedures</b> to avoid health or safety risks, and post them as appropriate in the classroom.</p>	<p>D. Teachers <b>identify and enforce classroom procedures</b> that guide students’ safe and healthy use of technology</p>	<p>D. Teachers <b>identify and advocate for technology resources to benefit all students</b> and specific technology resources for students with special needs.</p>
<p>E. Facilitate equitable access to technology resources for all students.</p>	<p>E. Teachers <b>identify issues related to equitable access</b> to technology in school, community, and home environments for all students.</p>	<p>E. Teachers <b>exhibit awareness of guidelines</b> for legal and professional responsibilities for students needing assistive technology.</p>	<p>E. Teachers <b>arrange for equitable access</b> to appropriate technology resources that enable students to engage successfully in learning activities within the classroom.</p>	<p>E. Teachers <b>advocate for equitable access</b> to technology for all students in their schools, communities, and homes.</p>