Technology Integration Standards for Teachers

In order to comply with *No Child Left Behind*, Washington State has developed *Technology Integration Standards for Teachers* and *Technology Literacy Standards for 8th Graders*. This work was done by a task force comprised of educators across the state.

The group defined Technology Integration and Technology Literacy and Fluency, and developed standards which were broken into three tiers for teachers and for students. NCLB requires that all teachers and eighth graders meet these standards by January 2007.

Edmonds School District will implement these standards through our Instructional Technology Levy. With current classroom technology, it is expected that teachers will develop skills to meet the Technology Integration Standards at a Tier 2 level. With the addition of Student Tech Tools and professional development, it is our goal to move teachers from Tier 2 to Tier 3 over time. Currently, all teachers should be at Tier 1, at a minimum. *(A teacher must be able to do at least 50% of the items in Tier 2 or Tier 3 in order to meet that level of standard. – See attached: OSPI 3 Tiers of Technology Integration, pg. 4)*

To support students in meeting these standards, Edmonds School District has broken the standards down by grade level *(pg. 6-17).* These standards are aligned with our core *Learning Outcomes*, so that there is a clear connection the Curriculum Frameworks. The four *Learning Outcomes* are:

- Using information resourcefully
- Managing socially and personally
- Communicating effectively
- Thinking strategically

OSPI Definition of Technology Integration

Elements of Powerful 21st Century Learning Environments

- Educators use technology to create rich environments where student work shows evidence of conceptual understanding beyond recall.
- Educators use technology to encourage students to engage in activities that develop understanding and create personal meaning through reflection.
- Educators use technology to provide opportunities for students to apply knowledge in real world contexts.
- Educators and students incorporate suitable technology to engage in active participation, exploration, and research.
- Educators use technology to provide diverse and culturally relevant experiences to help students develop an understanding of our world.
- Educators use technology to enhance and differentiate instruction in order to present students with a challenging curriculum designed to help each individual student develop a depth of understanding and critical thinking skills.
- Educators use technology for meaningful assessment data that informs their practice and allows students to exhibit higher order thinking and to demonstrate knowledge.
- Educators use and facilitate student use of technology to communicate, collaborate, and create communities with educators, parents, students, and additional stakeholders.

The phrase “use technology” should be seen as a continuum of constantly increasing skills that employs the appropriate cognitive demand as defined in Bloom’s Taxonomy and includes concepts such as: incorporate, exploit, leverage, employ, etc.

All of the above components are in support of Washington State’s learning goals and the state Essential Academic Learning Requirements and Grade Level Expectations.

OSPI 3 Tiers of Technology Integration into the Classroom Indicators

	Tier 1: Teacher Focus on Productivity	Tier 2: Instructional Presentation and Student Productivity	Tier 3: Powerful Student-Centered 21st Century Learning Environment
	This tier focuses on the teacher using technology to get their job done.	This tier involves teacher facilitation of large group learning activities and student productivity use of technology.	This tier promotes students to be actively engaged in using technology in individual and collaborative learning activities.
Observable Indicators	Teachers: • Locate standards using electronic tools to align lessons *(e.g., use the online Grade-Level Resources site and locate EALRs/GLEs on OSPI website)* • Find instructional resources on the Internet *(e.g., find lesson resources at NetTrekker, United Streaming, district, or state websites)* • Produce, store, and retrieve learning materials electronically (*e.g., create lesson plans in Word and store them on file server, create and print handouts for students that can be saved and modified in future years)* • Keep/organize student information, grades more effectively *(e.g., use electronic gradebook, extract achievement data from Skyward, graph student progress using Excel)* • Communicate information to parents and students via web or e-mail *(e.g., post upcoming events or assignments on school webpage)* • Communicate quickly with e-mail *(e.g., respond to e-mail from parents, learn about school meetings and events via internal e-mail)*	Teachers: • Conduct one-computer classroom lessons *(e.g., use software such as Inspiration, lead virtual field trips to museums using Internet)* • Deliver presentations with graphics and sound *(e.g., teachers use PowerPoint or audio production software)* • Lead students in brainstorming and sharing ideas *(e.g., teachers use MS Word, Kidspiration, or Inspiration)* • Represent information visually *(e.g., teachers create graphs in Excel or with a graphing calculator to visually represent chemical interactions)* • Facilitate group discussions and lessons *(e.g., teachers use interactive whiteboards, LCD projectors, document cameras, student response systems)* • Have students write papers and reports on assigned topics using computers or "smart keyboards" such as AlphaSmarts *(e.g., require that all student papers must be word-processed)* • Create scaffolding for student projects *(e.g., teachers provide students with writing prompts or project templates)* • Facilitate students using technology for assessment *(e.g., teachers use online quizzes or diagnostic tools, graph and analyze progress with class using Excel)* • Interactively communicate with parents and students *(e.g., teachers initiate and respond to e-mail, conduct on-line surveys, interact through website)*	Teachers enable students to: • Create and use online resources to facilitate inquiry *(e.g., students create and use online resources such as WebQuests)* • Engage in inquiry-based projects driven by essential questions (e.g., *students create major research projects using the Edmonds Research Process and essential questions)* • Direct their own use of technology *(e.g., students stay current with new information through tools such as RSS feeds)* • Research, analyze data and problem-solve in a global context *(e.g., student engage in projects such as ThinkQuest with classrooms in other states or countries)* • Engage in individual or collaborative project-based learning *(e.g., students engage in real-world projects and problem-solving using email or websites)* • Use modeling and simulations *(e.g., students conduct simulations using online resources)* • Write, develop and publish individual and collaborative products *(e.g., students publish projects online to be reviewed by parents or peers)* • Invent products through programming or production *(e.g., students produce how-to videos or movies to share with others)* • Create scaffolding for their own projects *(e.g., students create writing prompts or project templates)* • Are involved with their parents and teachers in the analysis of student data and meeting standards, or participate in developing their own learning plans *(e.g., students use classroom-based assessments and assess their own work)* • Initiate communication with parents, teachers, community members, or other students *(e.g., students display self-directed communication through tools such as weblogs)*