

Selected Examples of Effective Classroom Practice Involving Technology Tools and Interactive Media

Infants and Toddlers	Technology Tools and Interactive Media
<p>During the earliest years, infants and toddlers interact primarily with people. Their interactions with toys are usually in the context of human interaction as well. They need to freely explore, manipulate, and test everything in the environment. Increasingly in today's world, this includes the exploration of technology tools and interactive media. Children of this age are drawn to push-button switches and controls. Technology tools that infants and toddlers might use must be safe, sturdy, and not easily damaged. If technology is used, it must be in the context of conversation and interactions with an adult.</p>	<ul style="list-style-type: none"> • Allow children to explore digital materials in the context of human interactions, with an adult as mediator and co-player. As with shared book reading, use shared technology time as an opportunity to talk with children, use new vocabulary, and model appropriate use. • Avoid passive screen time. While some parents may claim that baby videos calm an otherwise fussy child, there is little research to suggest that infants and toddlers learn from watching videos. If infants are distressed, they need the comfort of a caring adult, not an electronic toy. • Use technology as an active and engaging tool when appropriate to provide infants and toddlers with access to images of their families and friends, animals and objects in the environment, and a wide range of diverse images of people and things they might not otherwise encounter (photos of children from other countries, for example). • Incorporate assistive technologies as appropriate for children with special needs and/or developmental delays. • Make digital audio or video files to document children's progress.
Preschoolers and Kindergartners	Technology Tools and Interactive Media
<p>During the preschool years, young children are developing a sense of initiative and creativity. They are curious about the world around them and about learning. They are exploring their ability to create and communicate using a variety of media (crayons, felt-tip markers, paints and other art materials, blocks, dramatic play materials, miniature life figures) and through creative movement, singing, dancing, and using their bodies to represent ideas and experiences. Digital technologies provide one more outlet for them to demonstrate their creativity and learning.</p>	<ul style="list-style-type: none"> • Allow children to freely explore touch screens loaded with a wide variety of developmentally appropriate interactive media experiences that are well designed and enhance feelings of success. • Provide opportunities for children to begin to explore and feel comfortable using "traditional" mouse and keyboard computers to use Websites or look up answers with a search engine. • Capture photos of block buildings or artwork that children have created; videotape dramatic play to replay for children. • Celebrate children's accomplishments with digital media displayed on a digital projector or on a classroom Website. • Incorporate assistive technologies as appropriate for children with special needs and/or developmental delays. • Record children's stories about their drawings or their play; make digital audio or video files to document their progress. • Explore digital storytelling with children. Co-create digital books with photos of the children's play or work; attach digital audio files with the child as the narrator. <p style="text-align: right;">(continued)</p>

<p>(continued)</p>	<ul style="list-style-type: none"> • Share e-books with a small group of children. • Use digital microscopes and other science materials to capture images and store them on a computer. • Search digital files for photos of places, people, animals, or objects and converse with children about what they are finding. • Use video-conferencing software to communicate with families and children in other places. • Arrange play experiences for children to construct and explore their ideas about how technology works. • Provide access to photographs and experiences children may not otherwise encounter (a visit to the crayon factory, for example, or images of people and places not represented in their environment).
<p>School-Age Children</p>	<p>Technology Tools and Interactive Media</p>
<p>It is during the early school-age years that children begin to use the tools of their society with competence. In our culture, that typically means learning to read and write, calculate, and investigate. Children use books, touch screens, writing instruments, and tools for studying scientific and social concepts. As digital technologies increasingly become the tools that older children and adults use in their work and home lives, younger children seek to emulate this usage, first through imitation and representational play and then later through mastery of the tools for their own self-expression and learning. New web-based technologies allow the child to be the producer of the technology, adding to the appropriateness, motivation, and usability of technology tools.</p>	<ul style="list-style-type: none"> • Explore a wide range of quality interactive media experiences, on a variety of platforms. These include literacy software, games, and technologies that go beyond drill and practice and foster creativity. • Use Web 2.0 tools for writing, collaboration, and playful experimentation. • Include a range of assistive technology devices to expand access for children with special needs. • Include language-translation software and keyboard adaptations for dual language learners. • Provide geometry software that allows children to explore the concept of shape by stretching, bending, shrinking, or combining images. • Use interactive digital games as a way to explore math, reading, social studies, and science concepts. • Provide digital microscopes and other digital tools for investigation. • Encourage children to become proficient in using digital tools such as cameras, scanners, recorders, and editing software. • Use technology tools to connect with other children in their communities or globally using e-mail, blogs, or video conferencing. • Integrate the International Society for Technology in Education (ISTE) standards into the curriculum. (See www.iste.org/libraries/PDFs/NETS_for_Teachers_2008_EN.sflb.ashx). • Record children's stories about their art projects, activities, and interactions; make digital audio or video files to document their progress. • Incorporate assistive technologies as appropriate for children with special needs and/or developmental delays.