

A Letter to Families About Computers

Dear Families,

In our program we are delighted to have computers as learning tools for your child. When he/she uses a computer, they

- Become comfortable with technology
- Develop beginning reading and writing skills
- Begin to understand math concepts such as counting and numerical relationships
- Learn to express themselves creatively
- Solve problems and begin to do research

We encourage children to work at the computer in pairs or small groups. This helps them learn from each other and supports their social skills. While the children are working at the computer, we ask them questions to help them think about what they're doing:

“What made you decide to choose this program?”

“How can we use the computer to send a copy of your painting to your grandparents?”

“What would you like to do with the printouts you made today?”

By working with children in these ways, we not only encourage their development and learning in all areas, but we also help prepare them for a future in which they need to know how to use computers.

What You Can Do at Home

You may or may not have a computer in your home. It is certainly not necessary that you have one in order for your child to benefit from our program's Computer area. If you do have a home computer and would like some ways to use it with your child, please ask. We would be glad to provide you with assistance, including how to judge which programs and Internet sites are appropriate for young children. We have some good information on this topic that we'd like to share with you.

You may be interested in visiting our program to observe how children use computers. If you'd like to volunteer to work with children in the Computer area, we'd be delighted to have your help. You may even enjoy learning more about computers, yourself!

What Children Learn in the Computer Area

The computer area offers many opportunities to integrate learning across content areas.

Literacy

Expand children's **vocabulary and language development** by introducing them to software that presents vocabulary with pictures, written words, and spoken words.

Help children develop **phonological awareness** with interactive software that plays with language.

Increase children's **understanding of books** by exposing them to electronic books.

Offer children practice in learning about **letters and words** with a program that matches pictures to their beginning letters.

Encourage children's **enjoyment of literacy** by letting them explore electronic storybooks.

Mathematics

Teach children **number concepts, patterns and relationships, and measurement** by using software that incorporates mathematical concepts.

Science

Teach children **physical science** by letting them explore how things work.

Introduce children to **life science** on the computer through software that teaches them about plants and animals. Some zoos and aquariums have live Web cams that enable children to view animals in real time.

Programs that have children report on the day's weather can help them learn about **Earth and the environment**.

Social Studies

Children can learn about **people and how they live** by using email to communicate with other classrooms around the world.

The Arts

The computer can be used as an art medium for children to experiment with color, shape, and design.

How Computer Play Promotes Development and Learning

Social-emotional

Computers are a way for children to demonstrate self-direction and independence. At the same time, they offer children opportunities to work with other children, solving problems as they jointly maneuver their way through a program. For some children, becoming computer “experts” provides them with a valued leadership role that they might not have otherwise.

Physical

Children work on fine-motor skills as they use a keyboard, put a CD-ROM in the drive, and coordinate the cursor with the movement of the mouse. In fact, every action on a computer involves fine-motor development and eye-hand coordination.

Language and literacy

As children learn to identify and use computer-related terms such as icon, cursor, and CD-ROM, they gain a technical vocabulary. With practice, they begin to identify the letters of the alphabet on the keyboard and on the screen. When the corresponding text is highlighted on the screen as the computer reads aloud, children make connections between speech and print.

Cognitive

Computers contribute to children’s intellectual development, and bridge the gap between concrete and abstract thinking. As children explore cause and effect, create patterns, solve problems, and discover solutions, they learn to do on a screen what they have already mastered through hands- on learning. Creativity flourishes, too, as children create art and experiment with graphics.



The *Creative Curriculum* Checklist for Selecting Developmentally Appropriate Software

- Program has age-appropriate content and approach with realistic expectations for children's skill levels.
- Children experience success and feel competent to use it.
- Child can use and adjust control features independently, without adult assistance.
- Program makes use of intrinsic motivation, not rewards, and is paced so children don't have to wait a long time for the program to load or for graphics or feedback to appear.
- Program offers choices that child can control.
- Content is meaningful and interesting and can be expanded. The software is open-ended and engages children in exploration and problem-solving activities.
- Child can set the pace or the movement through the program and exit at any time.
- Child and/or parent can set the level of difficulty.
- Automatic feedback is meaningful.
- Instructions are clear, simple, and not dependent on the ability to read.
- Program appeals to a variety of learning styles and multiple intelligences.
- Parents can track child's history using the program.
- Content and feedback are bias-free and violence-free.
- Program offers good value for the cost.