The Elementary Schools

The elementary technology program provides an important foundation for Scarsdale students. The program is comprehensive and interdisciplinary, addressing major themes within the curriculum.

Elementary school computer teachers support curriculum development and integration, technology instruction, and professional development in their respective schools. The computer teachers and classroom teachers are assisted by two computer aides who support the instructional program. The Head Elementary Computer Teacher coordinates the instructional program and consults with the other elementary computer teachers on a regular basis.

Elementary students engage in curriculum-related technology activities designed by their classroom teacher, computer teacher, and/or library media specialist. During the primary grades, students become engaged in a number of developmentally appropriate computer projects, beginning in kindergarten. Computers are used for problem-solving activities, creating simple publishing projects, painting and drawing, and slideshow presentations. As students progress through the grades, they complete projects and participate in technology-based activities that are more complex. Fifth grade students participate in an inquiry research experience, the Capstone Project, that brings together many of the strategies and skills they've learned in their elementary years.

Through the incorporation of mobile devices such as iPads and Chromebooks and online tools which include Google Apps and videoconferencing, students in grade K-5 develop their technology skills and dispositions through collaborative inquiries. The goal is for students to leave the elementary schools with the feeling that they can find, evaluate, and present information, and have the confidence that they can use technology independently.

Elementary students also learn how to create multimedia presentations and how to use the Internet as a tool for research. Students also have access to a variety of subscription-based online reference materials and software to support this goal.

Elementary Student Technology Expectations

1. **Empowered Learner**
   Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals.
   - Applications such as Google Apps, Wixie, Blogs (Seesaw, Campus Press), iMovie, Garageband, Keynote
   - Google Apps and 1:1 Chromebooks introduced in Grade 3
   - Students will:
     - Create multimedia presentations
     - Create digital art and media
     - Publish digital text

2. **Digital Citizen**
   Students recognize the rights, responsibilities and opportunities of living, learning, and working in an interconnected digital world, and they act in ways that are safe, legal, ethical, and self-aware.
   - Applications such as Google Apps, Blogs (Seesaw, Campus Press), Twitter, and other online resources.
   - Grades K-5 will have specific lessons and presentations by computer teachers and librarians. Lessons will include a discussion of cyberbullying.
   - Students will:
     - Understand and follow the District Acceptable Use and Internet Safety Policy
     - Advocate and practice safe, legal, and responsible use of information and technology
     - Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
     - Demonstrate personal responsibility for lifelong learning
     - Exhibit leadership for digital citizenship

3. **Knowledge Constructor**
   Students make meaning for themselves and others by critically curating resources through the use of digital tools.
   - Applications such as Book Creator, Google Drive and Sites, Blogs (Seesaw, Campus Press), Edmodo, and other online resources.
   - Primary grades: Book Creator, Research in grades 3-5, culminating with the Capstone Project in fifth grade
   - Students will:

    - Store, share, access, and manipulate files in Google Drive
    - Organize and reflect on content in Google Sites and Campus Press Blogs
    - Use apps such as Book Creator in primary grades to explain learning in their own words
    - Students will understand that different media has different purposes.

4. **Innovative Designer**
   Students use a variety of technologies within a design process to solve problems by creating new, useful and/or imaginative solutions
    - Apply tech and no-tech tools and materials to support understanding of the design process
    - Grades K-5, integrated with science STEAM units and makerspace activities
    - Students will:
        - Use the design process to identify and/or solve problems.
        - Utilize physical tools in conjunction with digital tools to plan strategies for managing and designing their projects or products.
        - Develop, test, and refine prototypes of innovative designs, concepts, products or solutions.

5. **Computational Thinker**
   Students identify authentic problems, work with data and employ algorithmic thinking to propose and automate solutions.
    - Applications such as Scratch, Tynker, Kodable, Tickle, Blockly, Code.org
    - Grades K-3 Kodable and other block-based coding, moving to Scratch in grades 4-5
    - Students will:
        - Understand that coding is an iterative process that requires testing and debugging.
        - Identify bugs in code and search for correct solutions.
        - Explain what a programmer does.
        - Move a “robot” in various directions using basic programming language.
        - Explain sequential programming processes.

6. **Creator and Communicator**

Students communicate clearly and express themselves creatively for a variety of purposes using the tools, styles, formats and digital media appropriate to their goals.

- Applications such as Keynote, iMovie, WeVideo, Google Apps, Padlet, Blogs (Seesaw, Campus Press)
- Grades K-5, multiple projects, coordinated with ELA projects and culminating with Capstone reports and presentations in fifth grade
- Students will:
    - Understand principles of typography, such as style, scale, alignment, and face, to add visual interest.
    - Understand that good presentations do not repeat what is being said, but provide complementary information.
    - Students will be able to modify the work, or extend the thinking, of others to generate a novel expression
    - Students will understand how visuals and audio work together to enhance communication.
    - Share stories and research with a public audience using publishing tools to create digital media productions.

7. **Global Collaborator**
   Students use digital tools to broaden their perspectives, increase empathy and understanding and work effectively in teams.
    - Applications such as Edmodo, Blogs (Seesaw, Campus Press), Google Apps, videochats (Skype, FaceTime, Google Hangout, etc)
    - Grades K-5 students, across the curriculum will:
        - Use collaborative tools to communicate and work effectively with classmates and those outside their classroom as well as publish to an authentic audience
        - Use social media and video chats to connect with educators and field experts around the world.
        - Use digital communication tools to gain access to diverse global perspectives.

The elementary technology team will continue to foster communication and collaboration through online accounts that are available for all students in grades 3-5. The major thrust of online tools will be to encourage communication and collaboration between students and teachers and their peers and colleagues via shared documents and presentations. Exchanging insights, perspectives, and information, and building on

them to develop individual acumen, are characteristics of today's globalized education.

Professional development sessions that will encourage teachers to connect with colleagues and experts throughout the District and around the world using our online resources and social media. These connections can help teachers customize their professional growth and acquire new knowledge.

The technology teachers will continue providing lunchtime technology training sessions and after-school technology professional development; this year they encouraged teachers to share their expertise via ST@C workshops, creating professional learning communities.

As we move forward and strive to align the existing elementary curriculum with the demands of Scarsdale Education for Tomorrow, we will need to bolster the capacity for teachers to implement technology resources and skills that not only motivate students to perform their best, but also develop learners who can succeed in tomorrow's classrooms and participate as contributing citizens in the global community.