

# Technology Supplement

## List One - Profiles for Technologically Literate Students. Standards and Performance Indicators

### Technology Standards:

#### Basic operations and concepts

- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

#### Social, ethical, and human issues

- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

#### Technology productivity tools

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works.

#### Technology communications tools

- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

#### Technology research tools

- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.

#### Technology problem-solving and decision-making tools

- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.

### Performance Indicators

[The numbers in parentheses refer to the corresponding technology standard.]

## *PRE-KINDERGARTEN - 2*

All students should demonstrate the following performance indicators prior to completion of Grade 2:

1. Use input devices (e.g. mouse, keyboard, remote control) and output devices (e.g. monitor, printer) to successfully operate computers and other technologies. (1)

## Technology Supplement

2. Use a variety of media and technology resources, such as CD ROMs and audiotapes for directed and independent learning activities. (1, 3)
3. Use developmentally appropriate multimedia resources (e.g. interactive books, educational software, and elementary multimedia encyclopedia) to support learning. (1) Work cooperatively and collaboratively with peers and others when using technology in the classroom. (2)
4. Demonstrate positive social and ethical behaviors when using technology. (2) Practice responsible use of technology systems and software. (2)
5. Gather information and communicate with others online with support from teachers or student partners. (e.g. share data, create web pages) (4)

### *GRADES 3-5*

All students should demonstrate the following performance indicators prior to completion of Grade 5:

1. Have demonstrated performance indicators for grades PK-2.
2. Students will have a working knowledge of touch-typing. (1)
3. Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. (3, 4, 5, 6)
4. Use technology resources (e.g. computers, calculators, videos, and educational software) for problem solving, research, self-directed learning, and extended learning activities. (4, 6)
5. Create developmentally appropriate multimedia products (cards, stories, Kidpix, HyperStudio, Inspiration, and Print shop banners) with support from teachers or student partners. (3)

### *GRADES 6-8*

All students should demonstrate the following performance indicators prior to completion of Grade 8:

1. Have demonstrated performance indicators for grades PK-2 and 3-5.
2. Use draw and paint programs to create original illustrations and diagrams and to modify clip art and scanned illustrations. (6)
3. Operate a digital camera with the opportunity to edit images electronically. (6, 7)
4. Understand current technological terms in order to follow instructions on using technology.
5. Use manuals and tutorials for learning new software. (8)
6. Access networked databases and other resources to gather information and utilize it to generate reports in several of the content areas. (7)
7. Assess the validity of data available from technological sources. (10)
8. Understand and comply with the District's Acceptable Use Policy. (3)
9. Use on-line resources (e.g. on-line discussions, and web environments) to access information, communicate with others, and participate in collaborative problem-solving activities in support of direct and independent learning, as well as pursuing personal interests. (4, 5, 6)

## Technology Supplement

### *GRADES 9-12*

All students should demonstrate the following performance indicators prior to completion of Grade 12:

1. Have demonstrated performance indicators for grades PK-2, 3-5, and 6-8.
2. Make informed choices among technology systems to decide which best serve the students' needs. (1, 2, 3)
3. Show and advocate an understanding of copyright, ethics, and plagiarism. (2)
4. Routinely use technology to meet personal and educational needs. (6)
5. Be aware of technology-based options for lifelong learning, including distance and distributed education. (3, 5)
6. Use technology to collaborate with others to produce creative works (e.g. creating web pages, slide shows, etc.). (3, 4, 5, 6)

#### List Two: Minimum Teacher Competencies in Technology

The National Council for Accreditation of Teacher Education (NCATE) has adopted a set of competencies for the accreditation of pre-service teachers. The Technology Planning Committee recommends that the Malone Central School District adopt the following list as the minimum technology competencies for its instructional staff. This list is a slightly modified version of the NCATE competencies.

#### 1. Computer and Windows Operation

- 1.1 Start up and shut down computer system and peripherals
- 1.2 Identify and use icons, windows, and menus
- 1.3 Use a file server (log on, use network drive, change password)
- 1.4 Start an application and create a document
- 1.5 Name, save, retrieve, and revise a document to a specific location
- 1.6 Create, name, and rename folders and sub-folders for good file management
- 1.7 Save, open, and place documents inside folders
- 1.8 Use printing options (landscape/portrait, specific pages, change printer, etc.)
- 1.9 Insert and eject floppy disk, CD-ROM, USB devices safely
- 1.10 Initialize, name, and rename floppy disk and USB drives
- 1.11 Copy a document from one disk to another (including hard drive, floppy disk, network drive, USB drive)
- 1.12 Open and work with more than one application at a time
- 1.13 Use the clipboard feature of Windows to copy data from one application and paste it in another

#### 2. Word Processing

- 2.1 Enter, edit, cut, copy, and paste text and move blocks of text
- 2.2 Save and use "Save as"; open and print documents
- 2.3 Change text format and style, set margin, line spacing, tabs
- 2.4 Check and correct spelling, grammar, and word usage
- 2.5 Create a header or footer
- 2.6 Insert date, time, and page number

## Technology Supplement

- 2.7 Create multi-column text
- 2.8 Insert and format clip art, WordArt, and other objects (such as textboxes, symbols, and pictures) into a document
- 2.9 Create numbered lists and bulleted lists
- 2.10 Create simple tables

### 3. Internet and E-mail

- 3.1 Type or paste a URL in the address box to access a specific web site
- 3.2 Access appropriate search engines and find appropriate sites related to a specific topic
- 3.3 Use and manage Electronic Mail (compose, send, retrieve, read, respond)
- 3.4 Attach a file to an e-mail and send
- 3.5 Prepare an MLA style citation for electronic media.
- 3.6 Select and access online and server-based streaming video
- 3.7 Understand and use safe networking practices (virus protection, spyware, e-mail attachments)
- 3.8 Report computer problems via TroubleTrakker
- 3.9 Be aware of the District policy on plagiarism and copyrighted material.

### 4. Spreadsheets

- 4.1 Enter data in an existing spreadsheet
- 4.2 Create spreadsheet w/rows, columns, and headings
- 4.3 Create and copy formulas and functions to perform calculations
- 4.4 Create a graph from spreadsheet data
- 4.5 Insert a spreadsheet into a word processing document

### 5. Media and Presentations

- 5.1 Set up and operate a presentation station, including VCR, DVD player, data projector, amplifier, remote control, etc.
- 5.2 Connect a video output device (e.g., LCD projector) to computer for large screen display
- 5.3 Use painting and/or drawing tools
- 5.4 Use digital camera and scanner to capture images
- 5.5 Use a computer to create slides or overheads
- 5.6 Create an electronic presentation from scratch
- 5.7 Add and format text, backgrounds, graphics, and pictures to slides
- 5.8 Use the slide sorter to rearrange slides
- 5.9 Use custom animation features for sounds and to animate text and graphics
- 5.10 Develop and demonstrate an instructional presentation as a full lesson

### 6. Library Resources

- 6.1 Use OPALS (Enhanced Online Library Catalog), mediated search engine, and full-text databases in the library and remotely
  - 6.2 Access/use commercial databases, inter-library loan, etc., available through the library web page
- Prepare an MLA-style citation using web-based tools

## Technology Supplement

### 7. District/Grade-Specific Hardware

7.1 Web2School (grades 6 - 12)

7.2 TroubleTrakker (everyone)

7.3 Be aware of other district/grade-level software:

United Streaming

Atomic Learning

Knowledge Suite

School Island