COMPUTER EDUCATION

Patchogue-Medford School District is committed to providing a 21st century modern learning environment for all students, Kindergarten through Grade 12. This commitment involves preparing students to access, gather, analyze, apply, synthesize and communicate information effectively so they transition into college or careers with a strong foundation in technology. Technology will be used to enhance instruction to allow community access and to address the needs of the entire learning community. All students and staff shall be afforded the opportunity to become technologically literate and proficient in the ethical use and application of technology in educational, personal and career and technical areas.

Instructional Goals

Patchogue-Medford School District is committed to the meaningful use of technology in the instructional program. The goals outlined below represented suggested benchmarks based upon students' developmental needs and likely progress.

Instructional Objectives

GRADES K-2 TECHNOLOGY GOALS

Communication and Collaboration - Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
Students will communicate effectively through the use of various software applications to
- create documents using word processing skills via developmentally appropriate word processing and/or publishing programs, including graphics and multi-media application.

Research and Information Fluency - Students will apply digital tools to gather, evaluate, and use information.

Students will access and retrieve electronic information using
- search strategies such as key words;
- electronic encyclopedias and catalogs; and
- network information systems.

Students will use information to support learning in all content areas.

Computer Education (Continued)
Grades K-2 Technology Goals (Continued)

Creativity and Innovations - Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.

Students will use technology to enhance their productivity by
- using technology to develop learning and process skills;
- using software for drill and practice and to gain new concepts; and
- developing strategies for problem solving, critical and creative thinking.

Students will develop basic technology skills by
- selecting and using appropriate technology;
- developing basic keyboarding skills;
- operating peripheral devices;
- using basic technology vocabulary and knowledge; and
- caring for technology equipment and using it safely.

Technology Operations and Concepts – Students demonstrate a sound understanding of technology concepts, systems and operations.

Digital Citizenship – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

GRADES 3-5 TECHNOLOGY GOALS

Communication and Collaboration - Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Students will communicate effectively through the use various software applications by
- creating written documents using word processing skills, writing process steps, and publishing programs;
- using electronic spell checker/thesaurus;
- using computer graphic programs;
- creating spreadsheets to manage information and creating reports;
- using publishing software and scanners to produce layouts; and
- integrating databases, graphics and spreadsheets into word-processed documents.

Students will communicate visually, graphically, and artistically through multi-media.

Students will communicate through networks and telecommunication

- using network communication systems (electronic mail).

Computer Education (Continued)
Grades 3-5 Technology Goals (Continued)

Research and Information Fluency - Students will apply digital tools to gather, evaluate, and use information.

> Students will access and retrieve electronic information by
> - using search strategies;
> - using electronic encyclopedias, almanacs, etc.;
> - using hand-held electronic calculators;
> - using databases to search for information; and
> - using local area network to locate information.

Creativity and Innovations - Students will demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.

> Students will use technology to enhance their productivity by
> - using software for drill and practice and to strengthen skill development;
> - using software for computer-assisted instruction (if appropriate); and
> - developing strategies for problem solving and critical thinking.

> Students will develop basic technology skills by
> - selecting and using technology appropriate to needs;
> - developing keyboarding skills to a developmentally appropriate level;
> - operating peripheral devices;
> - using an expanded technology vocabulary;
> - caring for technology equipment and using it safely; and
> - following copyright laws.

Technology Operations and Concepts – Students demonstrate a sound understanding of technology concepts, systems and operations.

Digital Citizenship – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

GRADES 6-8 TECHNOLOGY GOALS

Communication and Collaboration - Students use ditital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

> Students will communicate effectively through the use various software applications by
> - using graphic programs;
> - producing a document using word processing incorporating both text and graphics and following the writing process steps; and

Computer Education (Continued)
Grades 6-8 Technology Goals (Continued)

  - using electronic spell checkers, thesauruses and grammar checkers.

Students will communicate visually, graphically, and artistically through multi-media and computer-assisted design tools by
  - creating multimedia presentations that link various media.

Students will communicate through networks and telecommunications by
  - using network communication such as electronic mail and voice mail to access school information.

Research and Information Fluency - Students apply digital tools to gather, evaluate, and use information.

Students will access and retrieve electronic information by
  - using search strategies to retrieve electronic information;
  - using electronic encyclopedias, almanacs, indexes and catalogs to retrieve and select pertinent information; and
  - using local area networks and wide area networks.

Students will use information to support learning in all content areas.

Creativity and Innovations - Students will demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.

Students will use technology to enhance their understanding and development of basic skills by
  - using technology to develop learning skills and basic skills;
  - using software for computer-assisted instruction (if appropriate);
  - using software to gain new concepts; and
  - developing strategies for problem solving, critical and creative thinking.

Students will develop basic technology skills by
  - selecting and using technology appropriate to needs;
  - developing keyboarding skills to a developmentally appropriate degree;
  - operating peripheral devices;
  - caring for technology hardware and using it safely;
  - understanding copyright laws and other ethical issues pertaining to use of technology in society; and
  - understanding basic capabilities and limitations of technology's hardware and software.

Computer Education (Continued)
Grades 6-8 Technology Goals (Continued)

Technology Operations and Concepts – Students demonstrate a sound understanding of technology concepts, systems and operations.

Digital Citizenship – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

GRADES 9-12 TECHNOLOGY GOALS

Communication and Collaboration - Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Students will communicate effectively through the use of various software applications by
- creating a document at the keyboard using word processing skills and the writing process steps;
- communicating with spreadsheets: entering data and setting up formulas, analyzing costs with percentages and creating graphs or charts to visually represent data; and
- communicating with databases and spreadsheets by creating reports using data.

Students will communicate visually, graphically, and artistically through multi-media and computer-assisted design tools
- creating effective multi-media presentations that link various media.

Students will communicate through computer networks and telecommunications
- using electronic mail, voice mail, bulletin boards, and satellite telecommunications.

Research and Information Fluency - Student will apply digital tools to gather, evaluate, and use information.

Students will access and retrieve electronic information using
- search strategies to locate electronic information (identify key words, narrow search by addition of terms, broaden search, use truncation, use wild cards);
- electronic encyclopedias, almanacs, indexes and catalogs;
- networks for information (on-line databases, libraries, electronic bulletin boards);
- hand-held electronic devices: calculators and graphics calculators, electronic dictionaries, thesauruses and spell checkers; and
- cable and satellite-delivered services.

Computer Education (Continued)
Grades 9-12 Technology Goals (Continued)

Students will use information to support learning in all content areas using collaboration, problem solving, critical thinking and project-based learning.

Creativity and Innovations - Students will demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.

Students will use technology to enhance their understanding of basic skills by
- using technology to develop learning and workplace skills;
- using technology to develop process skills in all content areas;
- developing strategies for problem solving, critical and creative thinking;
- using applications programs to create high quality products; and
- developing creativity and innovation through the use of technology.

Students will develop basic technology skills by
- selecting and accessing technology appropriate to needs;
- using correct starting and exiting procedures;
- operating peripheral devices;
- using technology independently and cooperatively; and
- following ethical guidelines for using technology.

Technology Operations and Concepts – Students demonstrate a sound understanding of technology concepts, systems and operations.

Digital Citizenship – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

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