

**BILLINGS PUBLIC SCHOOLS  
MIDDLE SCHOOL  
CAPPS – COMPUTER APPLICATIONS**

**MISSION STATEMENT**

To educate students in becoming technologically literate, combining the practical application skills necessary to live and work in a changing technological society.

**PHILOSOPHY**

Technology education focuses on developing skills essential for success as lifelong learners. This focus fosters creativity, systematic problem-solving, decision making, and critical thinking and design skills in a cooperative working environment. Technology education actively involves students in the study and application of physical, informational, and bio-related technological systems.

Therefore, as an educational system we believe we can teach all children and all children can learn. We believe accessing knowledge, reasoning, questioning, and problem solving are the foundations for learning in an ever-changing world. We believe education enables students to recognize and strive for higher standards. Consequently, we will commit our efforts to help students acquire knowledge and attitudes considered valuable in order to develop their potential an/or their career and lifetime aspirations.

**STATE STANDARDS**

- I. A student must use digital tools and resources for problem solving and decision making.**
- II. A student must collaborate and communicate globally in a digital environment.**
- III. A student must apply digital tools and skills with creativity and innovation to express his/herself, construct knowledge and develop products and processes.**
- IV. A student must possess a functional understanding of technology concepts and operations.**

**MIDDLE SCHOOL  
CAPPS – COMPUTER APPLICATIONS  
Learner Objectives**

**I. A student must use digital tools and resources for problem solving and decision making.**

1. The learner will apply basic concepts of Computer-Aided Design (CAD) and produce rudimentary drawings.
2. The learner will apply design and problem-solving techniques to access and process electronic and graphic communication.
3. The learner will identify how positive and negative impacts of technology affect our lives and environment.

**II. A student must collaborate and communicate globally in a digital environment.**

4. The learner will be introduced to and apply information processing skills through the Internet.
5. The learner will develop workplace literacy skills which enable the student to become more self-reliant including time management, productivity, cooperative team concepts, and individual accountability.
6. The learner will apply basic academic skills in a workplace setting by integrating math and communication skills.
7. The learner will apply critical thinking skills in a workplace setting through brainstorming, risk-taking, decision-making, and problem solving.

**III. A student must apply digital tools and skills with creativity and innovation to express his/herself, construct knowledge and develop products and processes.**

8. The learner will design and produce documents created through desktop publishing techniques
9. The learner will integrate digital tools to produce a persuasive graphic communication.
10. The learner will be introduced to basic computer programming.
11. The learner will design and produce a nonlinear video communication from inception to a finished product on a personal computer.
12. The learner will capture, edit, and manipulate digital images to enhance graphics applications.
13. The learner will apply basic concepts of electronic data transfer and exchange, and demonstrate how personal computers are used to enhance information transfer.
14. The learner will examine the role computers can play in increasing productivity through CAD/CAM/CNC (computer-aided drafting, computer-aided manufacturing, and computer numerical control) manufacturing concepts and applications.

**V. A student must possess a functional understanding of technology concepts and operations.**

*No learning objectives written for this standard purposefully.*

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**Learner Objectives**

**Possible Learning Activities for CAPPS**

*Searching the INTERNET*  
*Making Desktop Publishing Work*  
*Placing & Arranging Graphics in Computer Documents*  
*Creating Graphics on a PC*  
*Digital Photography*  
*Computer Aided Design*  
*Presentation Graphics*  
*Bridge Design & Testing on a PC*  
*PC Problem Solving*  
*Web Page Design*  
*Car Building & Testing on a PC*  
*Computer Programming*