

BILLINGS PUBLIC SCHOOLS
ANIMATION LAB
Adopted December, 2002

MISSION STATEMENT

The Career Center is dedicated to providing Billings area students with an education that explores and enhances vocational and academic skills to promote critical thinking, self-discipline, and responsible citizenship.

BELIEF STATEMENTS

1. We believe in an environment that fosters mutual respect and dignity.
2. We believe that students and faculty should maintain pride in their work to improve their performance.
3. We believe that academic skills lay the foundation for critical thinking, problem solving, mathematical and communication skills.
4. We believe in the integration of academic and career areas.
5. We believe in the importance of current technology and its impact on the future.
6. We believe that students who are encouraged to set goals will gain confidence in their potential and ability to contribute to society.
7. We believe mutual support between school and community is an integral part of a students learning experience.

PHILOSOPHY

The purpose of this program is to provide students with a foundation of knowledge and technically oriented experiences in the study of animation technology. This program focuses on transferable skills and stressed practice using the technological tools, processes, and methods representative of today's industry. The content includes, but is not limited to a study of processes, and technical skills found in graphic design and visual arts, computer animation, multimedia production, theatre arts, electronic media, and other emerging technologies, while also examining related social and economic implications.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the tools and materials appropriate to the course content. Animation projects and assignments are meant to engage students in a creative process that helps students develop technical skills, self-motivation, cooperation, and self-esteem necessary for successful living.

LEARNING DOMAINS

- I. The student will demonstrate acquisition of technical knowledge and skills in areas of design for animation.**
- II. The student will create, perform/exhibit, and respond in the Arts.**
- III. The student will apply and describe the concepts, structures, and processes in the Arts.**
- IV. The student will develop and refine art skills and techniques to express ideas, pose and solve problems, and discover meaning.**
- V. The student will demonstrate a fundamental understanding of the impact of animation technology on society.**
- VI. The student will use a variety of technologies to enhance productivity.**
- VII. The student will use a variety of technologies for communications.**
- VIII. The student will demonstrate an awareness of career opportunities and requirements in the field of animation technology.**

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Learner Objectives

Technical Content Standards

I. The student will demonstrate acquisition of technical knowledge and skills in areas of design for animation.

1. Student will demonstrate knowledge of principle elements and fundamental techniques used to design and create animated media.
 - a. Demonstrate electronic image generation and modification techniques.
 - b. Process graphic images and sound files in formats designed for Internet viewers.
 - c. Describe how a projects purpose, mood, and audience affect the design process.
 - d. Implement the design process as it relates to identification of a visual message, brainstorm, research and generate ideas, identify criteria and specify constraints, explore possibilities, select an approach, develop a design proposal, make a prototype, test and evaluating the design using specifications, refine the design, create or make it, and communicate processes and results.
2. Student will demonstrate knowledge of digital media, processes, and techniques used to produce virtual reality (VR) environments that reflect the elements of simulation, immersion, and augmented reality.
 - a. Describe and explain steps in the design and modeling process.
 - b. Design and model three-dimensional environments involving a high degree of realism through the use of such conventions as construction and manipulation of digital images, textures, and acoustic space.
 - c. Design and model three-dimensional environments that support real-time navigation through an interactive environment.
3. Student will use computers and 3D modeling software, to design and render unique three-dimensional objects and expressive and non-expressive figurative forms.
 - a. Apply critical aesthetic and technical judgments about three-dimensional objects and forms.
 - b. Produce designed objects and forms using a variety of forming methods.
 - c. Apply design methods, techniques, processes, and media to communicate a specific idea or to elicit a particular response.
 - d. Study the human anatomy and designing models that possess a human quality.

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Learner Objectives

Technical Content Standards

I. The student will demonstrate acquisition of technical knowledge and skills in areas of design for animation. (cont.)

4. Student will use modeling supplies, lighting, and equipment to acquire fundamental technical clay animation skills.
 - a. Demonstrate techniques commonly used to develop clay models, armatures, and of model making.
 - b. Demonstrate basic methods used in set design, lighting, and special effects.
 - c. Demonstrate fundamental skills in script writing and storyboard development.
5. Student will use computers, selected software, and digital photographic and recording equipment, to acquire basic skills in the area of video production editing.
 - a. Demonstrate learned techniques used to create stop motion imagery.
 - b. Manage computer and peripheral devices to capture and edit video.
 - c. Apply basic cinematic techniques to produce works that visually communicate ideas both intellectually and aesthetically.
 - d. Demonstrate competency in the operation of digital video equipment and editing software.
6. Student will use computers and selected software to acquire knowledge and skills in designing and creating animated cartoons.
 - a. Apply critical aesthetic and technical judgments about two-dimensional characters.
 - b. Produce storylines for characters suitable for cartooning using a variety of methods.
 - c. Use two-dimensional media, techniques, tools and processes to communicate an idea or concept based on research, environment, personal experience, observation, or imagination.
 - d. Demonstrate the animated cartoons can communicate an idea and elicit a variety of responses through the use of selected media, techniques, and processes.
 - e. Demonstrate knowledge of computer software and peripheral devices to animate and produce cartoons.

II. The student will create, perform/exhibit, and respond to the Arts.

7. Student will understand and express themselves in depth through designing and creating animations.
 - a. Demonstrate individual imagination and technical skill in animation, modeling, rendering, and cinematography using selected software, clay, and digital video equipment.
 - b. Articulate meaning about their own work and the work of others through exhibition and presentation of completed work.

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Technical Content Standards

III. The student will apply and describe the concepts, structures, and processes in the Arts.

8. Student will acquire knowledge and skills related to concepts, structures, and processes in the Arts.
 - a. Apply the elements of character and plot as exposition, action, climax, and resolution.
 - b. Apply the elements, line, shape, form, floor, space, value, and texture to compose landscapes, scenes, and works of art and the principals of design: pattern, balance, contrast, rhythm, proportion, economy, movement, dominance.

IV. The student will develop and refine art skills and techniques to express ideas, pose and solve problems, and discover meaning.

9. Student will develop art skills and techniques to express ideas.
 - a. Define the communicative nature of animation as an art form that uses symbols, conventions, icons, graphic images, sound, and languages to engage viewers visually, audibly, and intellectually.
 - b. Describe how the design process is affected by the purpose, mood, and intended audience of a project.

V. The student will demonstrate a fundamental understanding of the impact of animation technology on society.

10. Student will demonstrate knowledge of ways in which animation technology impacts our society.
 - a. Discuss how the role of animation technology is perceived artistically, culturally, socially, economically (jobs) and politically.
 - b. Describe how most advancements in animation technology have been evolutionary, the results of a series of refinements to a basic process.
 - c. Assess and predict future directions for advanced animation technologies.
11. Student will demonstrate an understanding of the characteristics and scope of animation and VR technologies as a medium for communication to entertain and to inform.
 - a. Discuss ways that animation technology includes information and communication systems to inform, persuade, entertain, control, manage, and educate.
 - b. Discuss how virtual reality (VR), techniques, tools and processes communicate an idea or concept based on research, environment, personal experience, observation, or imagination.

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Learner Objectives

Technical Content Standards

VI. The student will use a variety of technologies to enhance productivity.

12. Student will integrate technology in designing, developing, and managing projects.
 - a. Use classroom equipment and software to design, and produce a digital CD portfolio to include examples of personal work, an autobiographic promotional segment, and an abstract of individual research interests.

VII. The student will use a variety of technologies for communication.

13. Student will develop skills in selecting and applying telecommunications tools to exchange ideas and information.
 - a. Manage an email account to access class information and share files.
 - b. Utilize a school wide LAN to store and retrieve shared files.
 - c. Utilize Internet resources to access information, and communicate with artists and professionals in the animation industry.
14. Student will develop skills characteristic of those used in media production to convey messages to an audience.
 - a. Compile and produce the graphic, video, script, sound and storyboard elements of a screen sequence for a multimedia application intended to communicate an idea.

VIII. The student will demonstrate an awareness of career opportunities and requirements in the field of animation technology.

15. Student will assess information from sources in the classroom, library, and appropriate on-line sites, the student will demonstrate his/her awareness of career opportunities.
 - a. Discuss interests related to a career in animation technology.
 - b. Explore secondary education opportunities related to a career in animation technology.
 - c. Explore career opportunities related to a career in animation technology by conducting an on-line job search.
16. Student will use classroom equipment and software the student will practice technical skills and procedures required for an occupation in a related field.
 - a. Engage in classroom activities and complete a variety of animation projects within specified timelines.