Regional Occupational Program

Media Arts 1 A-G 2026-2027

COURSE DESCRIPTION

This is a Project-Based course focusing on the use of entry-level to intermediate-level software in digital animation design/digital video editing and production. Units are designed around the creation of projects for students to design, build, create, or perform. This course addresses digital image manipulation, page layout, typography, and presentation. Basic visual design principles are an important component of this course. Students will create dynamic and engaging designs that express an idea or mood. The course content will introduce integration of manipulation of movement, time, sequence, and sound. This course builds on competencies in film, video, computer, and live production design, and foundational knowledge in design. Coursework will focus on careers in the multimedia/communications /game design workforce. Instruction will focus on the interaction between media sources in live, recorded, and web-based productions. Coursework will deepen specific skills in computer design, film and video production, lighting, sound, and projection design, and print media design in preparation for a content specific Capstone course.

Course Information:

Course Length:	1 Year
Prerequisite:	None
Course Level:	Concentrator
UC:	Yes G - Elective
Articulated:	No
Industry Cert.:	No
Industry Sector:	Arts, Media, and Entertainment
Pathway:	Design, Visual, and Media Arts Pathway
CALPADS:	7211

O*Net SOC Codes:

27-1014	Special Effects Artists and Animators
27-4032	Film and Video Editors
27-1024	Graphic Designer

Legend:

CTE - PS	CTE Pathway Standards
CRP	Career Ready Practices
CTE - AS	CTE Anchor Standards
CCSS	Common Core State Standards
ISTE	International Society for Technology in Education

Includes updates from the 25/26 Arts, Media and Entertainment Advisory
Advisory Minutes

Media Arts 1

Course Orientation

a. Discuss objectives for this course, including competencies, teacher expectations, classroom policies, and procedures.
b. Identify and discuss the acquisition of transferable skills (communication, collaboration, creativity, and critical thinking) and their importance to being college and career ready and for future personal and professional success.
c. Review objectives, competencies, and course syllabus.
d. Discuss student and teacher expectations, including behavior, class rules, appropriate dress, pre-course knowledge, and grading policies, including enrollment and attendance requirements and procedures, and classroom/school safety and disaster procedures.
e. Discuss next steps in course sequence related to the career pathway, the need for reinforcement of basic skills, transferrable skills, and postsecondary and career options.
f. Discuss the Big Six: Career Ready Essentials and the Standards for Career Ready Practice as they relate to this course, all aspects of the industry sector, and being college and career ready.

Big Six: Career Ready Essentials

1. Effective Communication	CTE – PS	CRP	CTE - AS	CCSS	ISTE
a. Demonstrate effective verbal communication and conflict resolution skills. **b. Use the writing process to develop written communication with the appropriate tone, organization, and format for the identified audience.** c. Explain the effect of interpersonal skills on one's ability to communicate effectively and develop relationships. d. Describe the impact of ineffective communication on business relationships. e. Analyze the impact of vocabulary, body language, and tone on verbal communication. f. Demonstrate active listening skills. g. Accurately interpret industry-specific written communication. h. Model responsible and effective use of various communication technologies. i. Identify valid and reliable digital reference and resource materials. j. Gather information from multiple digital sources to compare and contrast, synthesize, and summarize. k. Identify and use appropriate communication and collaboration technologies. l. Utilize technology to problem solve, accomplish tasks, and to produce or publish products.		1 2 11	2 3 4 5 7 8 9 10 11	**LS** 9-10 11-12.6 **SLS** 11-12.2 9-10 11-12.1 11-12.1d **WS** 11-12.7 11-12.6	1b,c 2c 3b,c 5c 6b,c,d

2. Collaboration, Creativity, and Critical Thinking	CTE – PS	CRP	CTE - AS	CCSS	ISTE
a. Demonstrate critical thinking skills for a variety of purposes and in different settings. **b. Collaborate to reach consensus on an identical objective through the sharing of knowledge, tasks, and learning.** c. Discuss the importance of the critical thinking process to real-world applications. d. Evaluate the impact of creative thinking on problem solving and innovation in real-world applications.		2 4 5 7 9 10	2 3 4 5 7 8	**LS** 9-10 11- 12.6 **SLS** 9-10	1c 3c,d 4a-d 5c,d 6c 7b,c,d

e. Compile work that demonstrates the process used to (elaborate, refine, analyze) evaluate original ideas and maximize creative efforts. f. Apply divergent and convergent thinking to the development of an original idea or solution. g. Examine real-world limits to adopting ideas. h. Demonstrate creative thinking (preparation, insight, evaluation, elaboration, and communication) to create a new idea or concept. i. Assume shared responsibility for collaborative work, and value the individual contributions made by each team member. j. Evaluate evidence, arguments, claims, and beliefs to identify connections. k. Identify bias, prejudice, propaganda, self-deception, distortion, and misinformation. l. Produce intellectual, informational, or material products that serve an authentic purpose. m. Work effectively and respectfully with those from diverse backgrounds or cultures. n. Demonstrate respect, trust, commitment, and the ability to compromise in collaborative projects.		11	9 11	11-12.1 11-12.1d 11-12.2 **WS** 11-12.7 11-12.6	
3. Leaders and Teams: Roles and Responsibilities	**CTE – PS**	**CRP**	**CTE - AS**	**CCSS**	**ISTE**
a. Determine the individual and team members' roles and responsibilities. **b. Demonstrate leadership skills and qualities (i.e., reliability, negotiation skills, initiative, positive reinforcement, recognition of others' efforts, problem-solving skills, conflict resolution, and delegation).** c. Explain the importance of technical, social, and communication skills to team success. d. Compare and contrast leadership styles and their effectiveness in various situations. e. Organize and delegate responsibilities in a team setting to encourage ideas, perspectives, and contributions from all team members. f. Develop a strong sense of team identity by brainstorming solutions, volunteering, assisting others, practicing respect and courtesy, and taking initiative. g. Examine situations in which a follower becomes the leader. h. Describe twenty-first-century skills required across all occupations. i. Identify and discuss the characteristics of a successful team (i.e., leadership, cooperation, and effective decision-making). j. Leverage social and cultural differences to increase innovation and quality of work.		7 8 9	3 7 8 9 11	**SLS** 11-12.2 9-10 11-12.1 11-12.1d **WS** 11-12.6	7a,c
4. Legal, Ethical, and Environmental Considerations	**CTE - PS**	**CRP**	**CTE - AS**	**CCSS**	**ISTE**
a. Demonstrate industry specific ethical and legal practices. **b. Identify eco-friendly industry specific practices and resources.** c. Identify local, state, and federal regulatory agencies, entities, laws, and regulations. d. Identify discrimination based on race, nationality, religion, gender, age, disability, or sexual orientation. e. Summarize the ethical and legal implications of workplace discrimination and harassment.		5 7 8 12	3 5 7 8 9 11	**WS** 11-12.6 11-12.7 **SLS** 9-10	2a,b 3a,b 5c 6c

f. Explain the concept of corporate citizenship. g. Examine an employer's role in protecting the health and welfare of employees, the community, and the environment. h. Analyze current environmental laws and regulations and their impact on industry. i. Compare and contrast both society's and industry's impact on the environment.				11-12.1 11-12.1d 11-12.2	
5. Personal Growth and Career Planning	**CTE - PS**	**CRP**	**CTE - AS**	**CCSS**	**ISTE**
a. Demonstrate continued personal development and growth. **b. Develop and manage a personal growth and career plan.** c. Explain the relationship between sound financial habits and financial security. d. Create and manage a personal financial plan. e. Demonstrate initiative in achieving personal and professional goals. f. Apply time management strategies to meet deadlines. g. Demonstrate a growth mindset through flexibility and a positive attitude. h. Select and demonstrate appropriate job-search and retention techniques. i. Demonstrate strategies to prepare for employment. j. Demonstrate interpersonal skills appropriate for the workplace. k. Elaborate on the importance of perseverance to personal and professional success. l. Discover personal career interests, aptitudes, and skills.		1 2 3 4 6	2 3 4 7 8 11	**LS** 9-10 11-12.6 **SLS** 9-10 11-12.1 11-12.1d 11-12.2 **WS** 11-12.6	1a 3a,c 4d 6a,d 7b
6. Workplace Safety and Personal Wellness	**CTE - PS**	**CRP**	**CTE - AS**	**CCSS**	**ISTE**
a. Demonstrate proper industry specific safe work practices to prevent injury or illness. **b. Assess the potential impact of goal setting on personal and professional success.** c. Describe the role of security and emergency procedures in workplace safety. d. Describe the effect of preventative measures on emergencies in the workplace. e. Identify and describe the causes, prevention, and treatment of common accidents. f. Identify local, state, and federal agencies that regulate workplace safety. g. Explain the role of the California Occupational Safety and Health Administration (Cal-OSHA) and the Environmental Protection Agency (EPA). h. Discuss the basics of system operations. i. Demonstrate the proper use of personal protective equipment (PPE). j. Explain the purpose of and accurately interpret a Safety Data Sheet (SDS). k. Identify hazardous materials and chemicals. l. Demonstrate proper procedures to respond to work-related accidents and injuries. m. Describe how ergonomics, housekeeping, and maintenance are related to accidents and injuries. n. Demonstrate cyber ethics, cyber safety, and cybersecurity. o. Assess the potential impact of preventative physical and mental health measures on workplace safety.		2 5 6 8 12	2 5 6 7 8 10 11	**LS** 9-10 11-12.6 **WS** 11-12.7 11-12.6 **SLS** 9-10 11-12.1 11-12.1d	1a,d 2a,d 5b

Media Arts 1 Units of Instruction

7. Principles and Elements of Design	CTE-PS	CRP	CTE- AS	CCSS	ISTE
a. Create digital designs that demonstrate an effective use of the elements of art and principles of design. b. Analyze, assess, and identify effectiveness of digital designs based on elements and principles of design and professional standards. c. Describe and demonstrate the unity, emphasis, and perceptual force principles of visual communications. d. Describe and demonstrate the eight elements of visual design (I.e., space, dot, line, shape, form, pattern, color, and texture).	A1.0 A1.1 A1.2 A1.3 A2.6 A4.0	1 2 5 10 11	1 2 5 11	**LS** 9-10 11-12.6 **WS** 11-12.7	

8. Drawing, Sketching, and 2-Dimensional Design	CTE-PS	CRP	CTE- AS	CCSS	ISTE
a. Demonstrate competency in the use of rapid visualization techniques. **b. Create a design using the elements of pattern and illusion.** c. Use patterns and illusions to create a design. d. Develop thumbnail sketches. e. Identify and list various typographical styles.	A2.3 A8.4	1 5 10 11	1 5 11	**WS** 11-12.7	

9. Image Editing	CTE-PS	CRP	CTE- AS	CCSS	ISTE
a. Demonstrate the ability to edit images utilizing industry standard software, and techniques to create quality outcomes. b. Demonstrate entry level technical skills to manipulate digital images and design layouts. c. Demonstrate the use of basic tools of industry standard software for modification of digital images. d. Apply layers in relation to creating collages and montages using specific digital images. e. Demonstrate skills to generate effects essential for quality outcomes using a variety of software features.	A2.1 A2.9 A8.1	1 4 5 10	1 4 5 11	**WS** 11-12.6 11-12.7	

10. Fundamental Media Design Process	CTE - PS	CRP	CTE - AS	CCSS	ISTE
a. Meet the principles of design standards using industry standard software for the following: **1) Replicate or reproduce designs** **2) Create original designs** **3) Modify digital images** **4) Reproduce collages and montages** **5) Produce rough and comprehensive layouts** **6) Create a multimedia project or product** b. Identify and use the principles of design to discuss, analyze, and create projects and products.	A1.0 A1.2 A1.4 A2.1 A2.9 A4.0 A8.2 A8.3	1 2 4 5 8 10 11	1 2 4 5 8 11	**LS** 9-10 11-12.6 **SLS** 11-12.1d **WS**	

c. Describe a variety of basic design principles used in graphic design applications. d. Produce sketches for printed documents using design principles. e. Evaluate various projects for proper grammar, punctuation, and adherence to specifications. f. Use design principles to evaluate, analyze and create projects and products. g. Complete a project meeting all guidelines such as design criteria, accuracy, and deadlines.				11-12.6 11-12.7	
11. Typography	**CTE - PS**	**CRP**	**CTE - AS**	**CCSS**	**ISTE**
a. Demonstrate the effective use of typographic design to create an image. b. Identify the characteristics of typeface- size, weight, style, etc. c. Identify multiple fonts and identify all parts of letter forms. d. Discuss the effect of a font's readability and overall design. e. Explain the role of typeface in creating and maintaining an image.	A8.4 A8.5	1 2 4 10	1 2 4 11	**LS** 9-10 11-12.6 **WS** 11-12.6	
12. Multimedia Design	**CTE - PS**	**CRP**	**CTE - AS**	**CCSS**	**ISTE**
a. Plan, design, and execute a multimedia project that meets specified guidelines. b. Demonstrate knowledge of media and technology skills. c. Explain the purpose of storyboards in the multimedia design process. d. Produce a storyboard with a clear and understandable message. e. List and describe the 12 Principles of Animation. f. Apply the 12 Principles of Animation to the creation of a walking bipedal character. g. Add sound and animation to a multimedia project using industry standard software.	A2.6 A2.7 A5.6 A8.0 A8.1 A8.2 A8.4	1 2 4 5 8 10	1 2 4 5 8 11	**LS** 9-10 11-12.6 **SLS** 11-12.1d **WS** 11-12.6 11-12.7	

A-G Approved Key Assignments	
1.	To develop key vocabulary and internalize the Principles and Elements of Design, student groups will create a brief presentation on a work of art, analyzing the Elements of Design used, and the Principles of Design incorporated, and defend the aesthetic of the piece. Student groups select from a list of art that includes samples of Renaissance, Mannerism, Baroque, Rococo, Neoclassical, Romanticism, *Realism*, Impressionism, Post Impressionism, Fauvism, Expressionism, Cubism, Surrealism, Abstract Expressionism, *Op-Art*, Pop Art, Minimalism, Photorealism, and others. *Unit(s) 7, 8, 9*
2.	Interpret random concepts and phrases such as 'stuck between a rock and a hard place' and quickly produce a visual representation of that concept breaking down complicated shapes into the most fundamental design that can still be interpreted correctly. *Unit(s) 7, 8, 9*
3.	Use industry standard software to create an image collage that portrays elements such as color, texture, rhythm, order, chaos, etc. Utilizing the juxtapose technique to assist the viewer in comparing two contrasting ideas. Examples: fuse into them into one image- such as an elephant face straight on and replace the face with a mushroom, Photoshop a balloon to make it look like it is made out of concrete. *Unit(s) 9, 10*
4.	Research a city's attractions, demographics and use Google images of the selected city to remix the iconic images to tell the story of the city. To further demonstrate design concepts such as texture, and positive and negative space students are encouraged to use a variety of materials, or images from newspapers, magazines, online and 'found' objects. The final artwork should demonstrate mood, tone, and unity that clearly depict multiple aspects of the city. *Unit(s) 7, 8, 9, 10*
5.	Using both a sketchbook and industry standard software create (e.g., vector and raster) a cartoon character in a variety of styles before creating a finished version. Study iconic cartoon characters to identify elements that demonstrate good design to gather ideas for the new character. Students will critique peer's collection of characters and work together to select the best one for final production. *Unit(s) 8, 9, 10, 12*
6.	Create a unique logo for a company using vector drawing software. The logo should demonstrate the company's image through use of color theory, typography, and overall design. *Unit(s) 7, 10, 11*
7.	Demonstrate knowledge of typeface by creating a poster to showcase one typeface labeling all parts of the letterforms using correct terminology. *Unit(s) 11*
8.	Use typographic design to create the image of an animal using only the letters in the animal's name. *Unit(s) 8, 11*
9.	In groups students will develop a product or a service and create a 30 second commercial using final cut pro. The commercial should demonstrate the concepts of video production and motivation theory that addresses characteristics of effective commercials such as audience-appropriate humor, relatable characters and situations, simple upbeat storyline, and building an emotional connection, and what prompts an audience to action. Group projects are shared, critiqued using a rubric, and showcased. *Unit(s) 12*
10.	Demonstrate foundational video production knowledge using projection mapping and animating graphics to create a brief animation that will be projected at the school for staff and students to observe. *Unit(s) 10, 12*
11.	Create a hand-drawn flipbook animation of a bouncing ball. *Unit(s) 8, 12*
12.	Demonstrate an understanding of the *12 Principles of Animation* by drawing a simple bipedal character that completes a full walk cycle (Contact, Recoil, Passing, and High Point). *Unit(s) 13*
13.	Demonstrate proficiency in the animation process by creating a five second animation that tells a story that includes a beginning, middle and end. The project will include a written script, storyboard design that includes characters and camera angles, the five second animation that includes music or a voice-over. Student projects are shared, critiqued using a rubric, and showcased. *Unit(s) 8, 12*
14.	Develop a portfolio demonstrating proficiency of skills learned throughout the course. *Unit(s) All*

Standards Alignment

The curricula have been aligned with the CTE Model Curriculum Standards released in 2013. Each industry sector was updated to meet the increased rigor and relevancy requirements of the Common Core State Standards. The curriculum also includes the new Standards for Career Ready Practices.

Standards for Career Ready Practice

1. *Apply appropriate technical skills and academic knowledge.*
2. *Communicate clearly, effectively, and with reason.*
3. *Develop an education and career plan aligned with personal goals.*
4. *Apply technology to enhance productivity.*
5. *Utilize critical thinking to make sense of problems and persevere in solving them.*
6. *Practice personal health and understand financial literacy.*
7. *Act as a responsible citizen in the workplace and the community.*
8. *Model integrity, ethical leadership, and effective management.*
9. *Work productively in teams while integrating cultural and global competence.*
10. *Demonstrate creativity and innovation.*
11. *Employ valid and reliable research strategies.*
12. *Understand the environmental, social, and economic impacts of decisions.*

CTE Anchor Standards—Common Core English Language Arts Alignment

Anchor Standard 1: Academics

Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the industry sector alignment matrix for identification of standards. Note: alignment listed within each sector.

Anchor Standard 2: Communications

Language Standard: Acquire and accurately use general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the (career and college) readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. LS 9-10, 11-12.6

Anchor Standard 3: Career Planning and Management

Speaking and Listening Standard: Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. SLS 11-12.2

Anchor Standard 4: Technology

Writing Standard: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

Anchor Standard 5: Problem Solving and Critical Thinking

Writing Standard: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem, narrow, or broaden the inquiry when appropriate, and synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. WS 11-12.7

Anchor Standard 6: Health and Safety

Reading Standards for Science and Technical Subjects: Determine the meaning of symbols, keywords, and other domain-specific words and phrases as they are used in a specific scientific or technical context. RSTS 9-10, 11-12.4

Anchor Standard 7: Responsibility and Flexibility

Speaking and Listening Standard: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners, building on others' ideas and expressing their own clearly and persuasively. SLS 9-10, 11-12.1

Anchor Standard 8: Ethics and Legal Responsibilities

Speaking and Listening Standard: Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the work. SLS 11-2.1d

Anchor Standard 9: Leadership and Teamwork

Speaking and Listening Standard: Work with peers to promote civil, democratic discussions and decision making; set clear goals and deadlines; and establish individual roles as needed. SLS 11-12.1b

Anchor Standard 10: Technical Knowledge and Skills

Writing Standard: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information. WS 11-12.6

Anchor Standard 11: Demonstration and Application

Demonstrate and apply the knowledge and skills contained in the industry-sector anchor standards, pathway standards, and performance indicators in the classroom, laboratory, and workplace settings, and the career technical student organization. Note: no alignment evident for this standard. WS 11-12.6

CTE Model Curriculum Standards—Industry Sectors and Pathways

Arts, Media, and Entertainment

A. Design, Visual, and Media Arts Pathway

A1.0 Demonstrate ability to reorganize and integrate visual art elements across digital media and design applications.

A1.1 View and respond to a variety of industry-related artistic products integrating industry appropriate vocabulary.

A1.2 Identify and use the principles of design to discuss, analyze, and create projects and products across multiple industry applications.

A1.3 Describe the use of the elements of art to express mood in digital or traditional artwork found in the commercial environment.

A1.4 Select industry-specific works and analyze the intent of the work and the appropriate use of media.

A2.1 Demonstrate skill in the manipulation of digital imagery (either still or video) in an industry-relevant application.

A2.3 Apply refined observation and drawing skills to solve an industry-relevant problem.

A2.6 Create an artistic product that involves the effective use of the elements of art and the principles of design.

A2.7 Create original works of art of increasing complexity and skill in a variety of media that reflect their feelings and points of view.

A2.9 Create a multimedia work of art that demonstrates knowledge of media and technology skills.

A4.0 Analyze, assess, and identify effectiveness of artistic products based on elements of art, the principles of design, and professional industry standards.

A5.6 Prepare portfolios of original art created for a variety of purposes and commercial applications.

A8.0 Understand the key technical and technological requirements applicable to various segments of the Media and Design Arts Pathway.

A8.1 Understand the component steps and skills required to design, edit, and produce a production for audio, video, electronic, or printed presentation.

A8.2 Use technology to create a variety of audio, visual, written, and electronic products, and presentations.

A8.3 Know the features and uses of current and emerging technology related to computing (e.g., optical character recognition, sound processing, cable TV, cellular phones).

A8.4 Analyze the way in which technical design (e.g., color theory, lighting, graphics, typography, posters, sound, costumes, makeup) contributes to an artistic product, performance, or presentation.

A8.5 Differentiate writing processes, formats, and conventions used for various media.

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ISTE Standards for Students

1. Empowered Learner- Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.

a) Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them, and reflect on the learning process itself to improve learning outcomes.

b) Students build networks and customize their learning environments in ways that support the learning process.

c) Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways

d) Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.

2. Digital Citizen- Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical.

a) Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.

b) Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.

c) Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.

d) Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.

3.Knowledge Constructor- Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.

a) Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.

b) Students evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.

c) Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

d Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.

4. Innovative Designer- Students use a variety of technologies within a design process to identify and solve problems creating new, useful, or imaginative solutions.

a) Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.

b) Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

c) Students develop, test, and refine prototypes as part of a cyclical design process.

d) Students exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems.

5. Computational Thinker- Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

a) Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.

b) Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.

c) Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

d) Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

6. Creative Communicator- Students communicate clearly and express themselves creatively for a variety of purposes using platforms, tools, styles, formats, and digital media appropriate for their goals.

a) Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

b) Students create original works or responsibly repurpose or remix digital resources into new creations.

c) Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.

d) Students publish or present content that customizes the message and medium for their intended audiences.

7. Global Collaborator- Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

a) Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

b) Students use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.

c) Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

d) Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.