

**Course Title:** Graphics and Animation

**Board Approval Date:** 06/16/14

**Credit / Hours:** 0.5credit

**Course Description:**

Graphics and Animation focuses on mastery of the PA Academic Standards for Business, Computer and Information Technology, PA Academic Standards for Arts, as well as the PA Common Core Standards for reading, writing and presenting information. As students progress through Graphics and Animation, they will participate in a systematic study of graphics including both technological and creative aspects of graphical design development, basic principles of design, file format characteristics, photograph editing and manipulating tools and web graphic animation.

Graphics and Animation is an elective course that will explore current technological options available for creating, manipulating, designing and animating graphics. Specifically, students will explore design principles and create numerous projects from conception to completion.

Graphics and Animation incorporates creativity, design, and technology while promoting critical thinking and problem solving skills.

**Learning Activities / Modes of Assessment:**

Large group instruction	Tests and Quizzes
Individual Note Taking	Checklists / Teacher Observation
Software User Interface	Multiple Projects with Rubrics
Reading assignments	Writing assignments
Graphic Organizers	Storyboard Layouts

**Instructional Resources:**

Adobe Photoshop CS6  
Various instructional videos and educational websites  
SumoPaint.com  
Royalty Free Photo Sharing Web Sites  
Royalty Free Music Sharing Web Sites  
edmodo.com  
Microsoft (MS) Word,  
MS Excel,  
MS PowerPoint,  
MS Paint,  
MS Publisher Software

## Course Pacing Guide

Course: **Graphics and Animation**

**Course Unit (Topic)**

**Length of Instruction (Days/Periods)**

1. Image Editing

45 days

2. Planning and Designing a Publication

10 days

3. Animation Creation

25 days

DAYS TOTAL

80 Days

Topic: 1-Image Editing

Days: 45

Subject(s):

Grade(s):

Know:	Understand:	Do:
<p>Basic Image Creation</p> <ul style="list-style-type: none"> <li>-Pixels</li> <li>-Transparent</li> <li>-Opaque</li> <li>-Thumbnail</li> </ul> <p>Characteristics of Clipart versus Photographs and Vector versus Bitmap images</p> <p>-Image Editing Tools:</p> <p>Transform, Adjustments, Filters, Layers</p> <p>Advanced Photo Editing(using Adobe Photoshop: Industry Standard)</p> <ul style="list-style-type: none"> <li>-Color modes</li> <li>-Opacity</li> <li>-Tolerance</li> <li>-Palette</li> <li>-History</li> <li>-Layer</li> </ul> <p>Photo Editing Tools:</p> <p>Transform, Adjustments, Filters, Gradients</p> <p>File Format Characteristics:</p> <p>BMP, GIF, JPG PSD, TIFF, PNG Lossy Compression Lossless Compression</p>	<p>Image editing skills and advanced photo editing skills can enhance personal and professional projects.</p>	<div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 5px;"> <p><b>15.4.12.K. – Unranked</b></p> <p>Evaluate advanced multimedia work products and make recommendations based on the evaluation.</p> </div> <div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 5px;"> <p><b>15.4.12.G. – Unranked</b></p> <p>Create an advanced digital project using sophisticated design and appropriate software/applications.</p> </div> <div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 5px;"> <p><b>15.4.12.A. – Unranked</b></p> <p>Apply the creative and productive use of emerging technologies for educational and personal success.</p> </div> <div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 5px;"> <p><b>15.4.12.L. – Unranked</b></p> <p>Find and use primary documentation; employ an accepted protocol for citation.</p> </div> <div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 5px;"> <p><b>15.4.12.M. – Unranked</b></p> <p>Evaluate the impact of emerging technologies on various career paths and provide examples of industry certifications within the field.</p> </div> <div style="background-color: #c8e6c9; padding: 5px;"> <p><b>9.1.12.A – Essential</b></p> <p>Know and use the elements and principles of each art form to create works in the arts and humanities.</p> <ul style="list-style-type: none"> <li>• Elements                             <ul style="list-style-type: none"> <li>Dance: energy/force, space, time</li> <li>Music: duration, intensity, pitch, timbre</li> <li>Theatre: scenario, script/text, set design</li> <li>Visual Arts: color, form/shape, line, space, texture, value</li> </ul> </li> <li>• Principles                             <ul style="list-style-type: none"> <li>Dance: choreography, form, genre, improvisation, style, technique</li> <li>Music: composition, form, genre, harmony, rhythm, texture</li> <li>Theatre: balance, collaboration, discipline, emphasis, focus, intention, movement, rhythm, style, voice</li> <li>Visual Arts: balance, contrast, emphasis/focal point, movement/ rhythm, proportion/scale, repetition, unity/harmony</li> </ul> </li> </ul> </div>

Topic: 1-Image Editing

Days: 45

Subject(s):

Grade(s):

Know:

Understand:

Do:

**9.1.12.B – Important**

Recognize, know, use and demonstrate a variety of appropriate arts elements and principles to produce, review and revise original works in the arts.

- Dance: move, perform, read and notate dance, create and choreograph, improvise
- Music: sing, play an instrument, read and notate music, compose and arrange, improvise
- Theatre: stage productions, read and write scripts, improvise, interpret a role, design sets, direct
- Visual Arts: paint, draw, craft, sculpt, print, design for environment, communication, multi-media

**CCR.W.2 – Unranked**

Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

**9-10.L.6 – Unranked**

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

**9-10.S.4 – Unranked**

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Know: Topic: 2 Planning and Designing a Publication	Understand: Principles of design	Do: Days: 10 Grade(s):
<p>Subject(s):</p> <p>Basic Principles of Design</p> <p>Basic questions designers need to answer when planning and designing a publication</p> <p>Types of formats available for use in creating publication</p> <p>Software tools to create publications</p>	<p>Principles of design need to be considered and incorporated in planning and designing a publication.</p>	<p><b>15.4.12.G. – Unranked</b> Create an advanced digital project using sophisticated design and appropriate software/applications.</p> <p><b>15.4.12.K. – Unranked</b> Evaluate advanced multimedia work products and make recommendations based on the evaluation.</p> <p><b>15.4.12.L. – Unranked</b> Find and use primary documentation; employ an accepted protocol for citation.</p> <p><b>15.4.12.A. – Unranked</b> Apply the creative and productive use of emerging technologies for educational and personal success.</p>

Know:	Understand:	Do:	Days: 10
<p>Topic: 2 Planning and Designing a Publication</p> <p>Subject(s):</p>		<p><b>9.1.12.A – Unranked</b>                      Know and use the elements and principles of each art form to create works in the arts and humanities.</p> <ul style="list-style-type: none"> <li>• Elements                         <ul style="list-style-type: none"> <li>Dance: energy/force, space, time</li> <li>Music: duration, intensity, pitch, timbre</li> <li>Theatre: scenario, script/text, set design</li> <li>Visual Arts: color, form/shape, line, space, texture, value</li> </ul> </li> <li>• Principles                         <ul style="list-style-type: none"> <li>Dance: choreography, form, genre, improvisation, style, technique</li> <li>Music: composition, form, genre, harmony, rhythm, texture</li> <li>Theatre: balance, collaboration, discipline, emphasis, focus, intention, movement, rhythm, style, voice</li> <li>Visual Arts: balance, contrast, emphasis/focal point, movement/rhythm, proportion/scale, repetition, unity/harmony</li> </ul> </li> </ul> <div style="background-color: #e0f2f1; padding: 10px; margin: 10px 0;"> <p><b>9.1.12.B – Essential</b>                      Recognize, know, use and demonstrate a variety of appropriate arts elements and principles to produce, review and revise original works in the arts.</p> <ul style="list-style-type: none"> <li>Dance: move, perform, read and notate dance, create and choreograph, improvise</li> <li>Music: sing, play an instrument, read and notate music, compose and arrange, improvise</li> <li>Theatre: stage productions, read and write scripts, improvise, interpret a role, design sets, direct</li> <li>Visual Arts: paint, draw, craft, sculpt, print, design for environment, communication, multi-media</li> </ul> </div> <p><b>CCR.W.2 – Unranked</b>                      Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p><b>CCR.S.1 – Unranked</b></p>	<p>Grade(s):</p>

Brenda Brewer

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Know: Topic: 2 Planning and Designing a Publication	Understand:	Do:	Days: 10
Subject(s):		Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	Grade(s):

Topic: 3-Animation Creation

Days: 25

Subject(s):

Grade(s):

Know:

Understand:

Do:

<p>How to optimize images and photos for the web</p> <p>How to create a web animation in Photoshop</p> <p>How to create a web animation in Flash</p> <p><u>Images for the Web</u></p> <p>Image Compression, JPEG, Screen Resolution, File Size, Download Time, ISP, Web Animation, Frame, Background Transparency, Progressive JPEG, RGB, GIF, PNG</p>	<p>Images for the web must have a proper balance between image quality and download time.</p>	<p><b>3.4.12.D2. – Important</b>  <b>USING AND MAINTAINING TECHNOLOGICAL SYSTEMS</b> - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.</p> <p><b>15.4.12.G. – Unranked</b>  Create an advanced digital project using sophisticated design and appropriate software/applications.</p> <p><b>15.4.12.A. – Unranked</b>  Apply the creative and productive use of emerging technologies for educational and personal success.</p> <p><b>15.4.12.K. – Unranked</b>  Evaluate advanced multimedia work products and make recommendations based on the evaluation.</p> <p><b>1.a – Unranked</b>  Apply existing knowledge to generate new ideas, products, or processes</p> <p><b>1.b – Unranked</b>  Create original works as a means of personal or group expression</p> <p><b>4.b – Unranked</b>  Plan and manage activities to develop a solution or complete a project</p>
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