



Manhattan Center for Science and Math High School

Mathematics Department Curriculum

Content/Discipline Multimedia (Graphics communication)

[tzs101.blogspot.com](http://tzs101.blogspot.com)

Marking Period 1

Topic and Essential Question

**How do we communicate through graphics? Using Multimedia**

**What is Multimedia? Multimedia – text, graphics, video/ movies**

**How do we make the media for graphic communication? Using Programs like Powerpoints, Publisher, Photoshop, Illustrator and Sketch up**

Unit/Topics

Unit #1 - Introduction to Multimedia and how to create them using different computer software.

SWBAT/Objectives

Content (“Know”):

How to use computer software like *Microsoft Publisher, Power Points, and Adobe Photoshop* to create Multimedia projects.

Skills (“Do”):

Assignment 1 – 2 days

Making a **Business card** using *Microsoft Publisher* templates.

Adding **text** and **graphics / photo** to a business card and saving the file in different formats

Assignment 2 – what is Multimedia Essay – 1 day

Using *Microsoft Words* type the following essay

- (1) What is multimedia to you? (2) Provide some samples (3) Careers and future that uses multimedia.
- (2) Students will be archive their assignments in *Microsoft PowerPoint*

Assignment 3 to 10 – 25 days

(3) Students will be able to learn the basic function of Photoshop, applying filters.

(4) Concepts of Layering with multiple pictures in different layers

(5) Creating shapes and coloring

(6) Gradient tools

(7) Glass text effect via layer properties

(8) Photo in text via clipping mask

(9) Plastic text effect via layer properties and contours.

(10) Crazy text effect – manipulating the outlines of text to create “new” text shapes and adding different effect in the shapes.

**Vocabulary/Key Terms**

Computer software: Publisher, templates, Powerpoints, slides, layers, filters, shapes, gradients, buckets, color selection, path, marquees, clipping mask, channels, Photoshop

**Assessments:**

- Assignment
- Classwork
- Lesson Summary
- Daily progress submitted via email
- Tests
- Archive of work in Powerpoint slides

**Common Core Standards:**

F.IF.7 , F.LE.1, F.LE.2, F.LE.3, F.LE.4, F.IF.8

**Common Core Standards for Math Practices:**

- MP1: Make sense of problems and persevere in solving them.
- MP2: Reason abstractly and quantitatively.
- MP3: Construct viable arguments and critique the reasoning of others.
- MP4: Model with mathematics
- MP5: Use appropriate tools strategically
- MP6- Attend to precision

**Differentiated Instruction:**

- Flexible grouping
- Cooperative Learning
- Visual Learning – SMART Board, White board
- Visual and interactive questions using the Smart board
- Students have an option to view additional videos, tutorials, interactive practice problems online through the class website, [tzs101.blogspot.com](http://tzs101.blogspot.com)

**ELLs:**

- Students with ELL's will watch videos (the video has English and Spanish both versions) and additional tutorials about the lesson through the class website.
- Students are allowed extra time for works and assessments

**SWDs:**

- Preview the Key Terms to give students access to context.
- Assign chapter summary to give less proficient readers access to content.

**High-Achievers:**

- ❖ Have gifted students assist students that are not as gifted.
- ❖ Ask students to take on leadership roles when working in groups.

**Resources/Books**

Websites: [tutoribalboard.net](http://tutoribalboard.net)

Homework: Per Teacher



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Marking Period 2

Topic and Essential Question

**More graphics manipulation with Photoshop**

**Creating from scratch using Adobe Illustrator (2d shapes)**

Unit/Topics

**Unit #2** – Continue with Photoshop with creation of Flyer and Poster

**Unit #3** - Introduction to Adobe Illustrator

SWBAT/Objectives

Content (“Know”):

**How to use computer software like** *Adobe Photoshop, and Adobe Illustrator* to create Multimedia projects.

Skills (“Do”):

Change over to online blogging with their Gmail – Google’s Blogger

**Assignment 11 – 2 days**

Making a **Flyer** using *Photoshop*.

Adding **text** and **graphics / photo** to a club fair flyer.

**Assignment 12 – 1 day**

Adding texture via layers

**Assignment 13 to 20 – 27 days**

13- healthy choice poster – change one thing campaign

14- displacement map with Flag “painted” on the brick wall

15 – “painting” on the face – using the displacement map techniques

16 – Smart object – altering part of the filter applied on the background picture.

17- another way to select an area to Photoshop – masking

18- Combining smart object and masking to alter the filter for soft skin.

19- Introduction to Adobe Illustrator – creating a “USB thumb drive” basic shapes.

20- creating a wireless phone with Illustrator (test)

Vocabulary/Key

Computer software: Photoshop layers, filters, shapes, gradients, buckets, color selection, path, marquees, clipping mask,

<b>Terms</b>	channels, Illustrator, color stops, layer order
<b>Assessments:</b>	<ul style="list-style-type: none"> <li>• Assignment</li> <li>• Classwork</li> <li>• Lesson Summary</li> <li>• Daily progress submitted via email</li> <li>• Tests</li> <li>• Archive of work in Powerpoint slides</li> </ul>
<b>Common Core Standards:</b>	<p>F.IF.7 , F.LE.1, F.LE.2, F.LE.3, F.LE.4, F.IF.8</p> <p><u>Common Core Standards for Math Practices:</u></p> <ul style="list-style-type: none"> <li>•MP1: Make sense of problems and persevere in solving them.</li> <li>•MP2: Reason abstractly and quantitatively.</li> <li>•MP3: Construct viable arguments and critique the reasoning of others.</li> <li>•MP4: Model with mathematics</li> <li>•MP5: Use appropriate tools strategically</li> <li>•MP6- Attend to precision</li> </ul>
<b>Differentiated Instruction:</b>	<ul style="list-style-type: none"> <li>• Flexible grouping</li> <li>• Cooperative Learning</li> <li>• Visual Learning – SMART Board, White board</li> <li>• Visual and interactive questions using the Smart board</li> <li>• Students have an option to view additional videos, tutorials, interactive practice problems online through the class website, <a href="http://tzs101.blogspot.com">tzs101.blogspot.com</a></li> </ul>
<b>ELLs:</b>	<ul style="list-style-type: none"> <li>• Students with ELL's will watch videos (the video has English and Spanish both versions) and additional tutorials about the lesson through the class website.</li> <li>• Students are allowed extra time for works and assessments</li> </ul>
<b>SWDs:</b>	<ul style="list-style-type: none"> <li>▪ Preview the Key Terms to give students access to context.</li> <li>▪ Assign chapter summary to give less proficient readers access to content.</li> </ul> <p>❖ Have gifted students assist students that are not as gifted.</p>

**High-Achievers:**

- ❖ Ask students to take on leadership roles when working in groups.

**Resources/Books**

Websites: <http://www.tutoribalboard.net> , <http://designstacks.net/>,

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Marking Period 3

Topic and Essential Question

**3d modeling with Sketch Up**

**Review of Photoshop and Publisher**

Unit/Topics

Unit #4 – Introduction to Google Sketch Up (3d modeling)

Unit #5 – back to Photoshop for animation

Unit #6 – Creating a brochure with Publisher

SWBAT/Objectives

Content (“Know”):

How to use computer software like *Sketch Up, Adobe Photoshop, and Publisher* to create Multimedia projects.

Skills (“Do”):

Continue to archive assignments via online blogging with their Gmail – Google’s Blogger

Assignment 21 – 2 days

Introduction to Sketch up – 2d shapes, 3d objects and creating basics letters for student’s name (2d to 3d)

Assignment 22 – 15 days

Basic 12 blocks with precise measurement. And coloring. Quiz to follow...

Assignment 23 -3 days

Creating a house with details like windows and door

Assignment 24 -1 day

Back to Photoshop – separating channels to create a 3d picture effect. (3d glasses used to view final work).

Assignment 25 - 3 days

Animation – creating frames to animate.

Assignment 26 - 3 days

Creating a showcase – test of all the Photoshop skilled learned in this semester

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**Assignment 27 – 3 days**

Brochure created with Publisher – students’ fall semester schedule.

**Vocabulary/Key Terms**

Computer software: Photoshop layers, filters, shapes, gradients, buckets, color selection, path, marquees, clipping mask, channels, Illustrator, color stops, layer order

**Assessments:**

- Assignment
- Classwork
- Lesson Summary
- Daily progress submitted via email
- Tests
- Archive of work on online Blogger.com

**Common Core Standards:**

F.IF.7 , F.LE.1, F.LE.2, F.LE.3, F.LE.4, F.IF.8

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through the class website.

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**ELLs:**

- Preview the Key Terms to give students access to context.
- Assign chapter summary to give less proficient readers access to content.

**SWDs:**

- ❖ Have gifted students assist students that are not as gifted.
- ❖ Ask students to take on leadership roles when working in groups.

**High-Achievers:**

**Resources/Books**

Websites: <http://www.photoshop-plus.co.uk/> and Drafting text book for the 3d blocks

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