CARLISLE AREA SCHOOL DISTRICT

Carlisle, PA 17013

DIGITAL DESIGN

Grades 9 - 12

Date of Board Approval: April 14, 2016

CARLISLE AREA SCHOOL DISTRICT
PLANNED INSTRUCTION COVER PAGE

TITLE OF COURSE:	Digital Design	SUBJECT:	Art and Design	GRADE LEVEL:	9 - 12
COURSE LENGTH:	One Year	DURATION:	50 minutes	FREQUENCY:	4 days/ week
PREREQUISITES:	N/A	CREDIT:	1	LEVEL:	N/A

Course Description/Objectives: Digital Design is an introductory course into the broad field of art, design and technology. Students will develop their overall sense of design and learn how practical and integral design is to their daily, technology-based lives. Assignments will provide an introduction to two-dimensional (communication or graphic design), three-dimensional (object design), four-dimensional (environmental design), and five-dimensional (experience design). Students will learn more about these areas of design and how to use design concepts like color, space, texture, balance, rhythm, and unity to create products and projects that involve human interaction. Students will learn how to create original works of design using hand drawn illustrations, online computer programs, and traditional computer software.

Text: None

Curriculum Writing Committee: Rachel Drumheller

COURSE TIME LINE

Unit #1: Typography   36 days
- Typography Families (Essential)
- Grid Layout (Essential)
- Text Hierarchy (Essential)
- Composition Guidelines (Essential)
- Criticism and Aesthetics (Important)
- Primary Resources (Compact)

Unit #2: Digital Photography and Scanning   16 days
- Images for the Web (Compact)
- Images for Print (Essential)
- Image Correction (Essential)
- Criticism and Aesthetics (Important)
- Primary Resources (Compact)

Unit #3: Digital Illustration   16 days
- Appropriation (Essential)
- Copyright Laws (Compact)
- Altering Images (Important)
- Composition Guidelines (Essential)
- Primary Resources (Compact)

Unit #4: Object Design: Three-Dimensional Products   36 days
- Design Process (Essential)
- Design Thinking (Important)
- Prototypes (Important)
- Criticism and Aesthetics (Important)
- Primary Resources (Compact)

COURSE TIME LINE

Unit #5: Spatial Design   36 days
- Interior/Space (Essential)
- Urban Planning (Important)
- Architecture (Essential)
- Exterior/Place (Essential)
- Interior Design (Essential)
- Exhibit Design (Compact)
- Criticism and Aesthetics (Important)
- Primary Resources (Compact)

Unit #6: Interactive Design: Reality   24 days
- Reality (Compact)
- Altered Reality (Important)
- Criticism and Aesthetics (Important)
- Primary Resources (Compact)

KNOW, UNDERSTAND, DO

COURSE:	Digital Design		TIME FRAME:	9 weeks
UNIT #1:	Typography		GRADE:	9-12

STANDARDS:

PA Arts & Humanities Standards, Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts, Grade 12:

9.1.12 D
- Demonstrate specific styles in combination through the production or performance of a unique work of art.

9.1.12 E
- Analyze how historical events and culture impact forms, techniques and purposes of works in the arts.

9.1.12 J
- Analyze and evaluate the use of traditional and contemporary technologies for producing, performing and exhibiting works in the arts or the works of others.

9.1.12 K
- Analyze and evaluate the use of traditional and contemporary technologies in furthering knowledge and understanding in the humanities.

PA Arts & Humanities Standards, Historical and Cultural Contexts , Grade 12:

9.2.12 E
- Analyze how historical events and culture impact forms, techniques and purposes of works in the arts.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	TIME FRAME:	9 weeks
UNIT #1:	Typography	GRADE:	9-12

PA Arts & Humanities Standards, Critical Response , Grade 12:

9.3.12 A
- Explain and apply the critical examination processes of works in the arts and humanities.

9.3.12 B
- Determine and apply criteria to a person's work and works of others in the arts.

9.3.12 C
- Apply systems of classification for interpreting works in the arts and forming a critical response.

PA Arts & Humanities Standards, Aesthetic Response , Grade 12:

9.4.12 B.
- Describe and analyze the effects that works in the arts have on groups, individuals and the culture.

9.4.12 C.
- Compare and contrast the attributes of various audiences' environments as they influence individual aesthetic response.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	TIME FRAME:	9 weeks
UNIT #1:	Typography	GRADE	9-12

UNDERSTANDINGS

Students will recognize that are similarities and differences between art and design. In order to design, basic guidelines must be followed to create a legible and attractive design. Within the area of design there are two methods of presenting work; digital and traditional print. The similarities between these two are similar although each method has disadvantages and certain criteria that are followed so that the end product is effective and attractive.

COMMON ASSESSMENTS/CULMINATING ACTIVITY

Identify and classify examples of design into the four different types; communication, object, spatial, and experience design.
Complete a simple and open-ended project where criteria is established but there are multiple solutions.
Identify and classify five examples of both serif and sans serif from the media. Identify where the example came from in the layout to identify common trend of how these two types of fonts are used.
Create a print design using only serif and sans serif fonts displaying a hierarchy of information.

KNOW

- Compare the difference between design and fine art. Design differs from fine art since design focuses on the functionality of the piece and finds a solution to a human need/desire/problem.
- Define how communication design is a two-dimensional type of design that includes graphic design, digital media, film/TV, and animation.
- Recognize how communication design displays a clear message and it strictly informative in either print or in digital media form.
- Identify the reasons how and why communication design has evolved.
- Identify current types of media and purposes that designers use and the targeted audiences.

DO

- Research and identify the similarities and differences of using print versus digital media and the purposes and audiences and that they target.
- Interpret and evaluate the message the designer is presenting in their work.
- Create their own message by applying design guidelines to organize their work in both in print and in digital media.

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KNOW, UNDERSTAND, DO

COURSE:	Digital Design	**TIME FRAME:**	4 weeks
UNIT #2:	Digital Photography and Scanning	**GRADE:**	9-12

STANDARDS:

PA Arts & Humanities Standards, Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts, Grade 12:

9.1.12 A
- Know and use the elements and principles of each art form to create works in the arts and humanities.

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

9.1.12 D
- Demonstrate specific styles in combination through the production or performance of a unique work of art.

9.1.12 H
- Incorporate the effective and safe use of materials, equipment and tools into the production of works in the arts at work and performance spaces.

9.1.12 J
- Analyze and evaluate the use of traditional and contemporary technologies for producing, performing and exhibiting works in the arts or the works of others.

9.1.12 K
- Analyze and evaluate the use of traditional and contemporary technologies in furthering knowledge and understanding in the humanities.

PA Arts & Humanities Standards, Historical and Cultural Contexts, Grade 12:

9.2.12 C
- Relate works in the arts to varying styles and genre and to the periods in which they were created.

9.2.12 L
- Identify, explain and analyze common themes, forms and techniques from works in the arts.

PA Arts & Humanities Standards, Critical Response, Grade 12:

9.3.12 A
- Explain and apply the critical examination processes of works in the arts and humanities.

9.3.12 B
- Determine and apply criteria to a person's work and works of others in the arts.

PA Arts & Humanities Standards, Aesthetic Response , Grade 12:

9.4.12 C
- Compare and contrast the attributes of various audiences' environments as they influence individual aesthetic response.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	**TIME FRAME:**	4 weeks
UNIT #2:	Digital Photography and Scanning	**GRADE:**	9-12

UNDERSTANDINGS

Designers use different types of images depending on the client's needs, copyright laws, and where the final product will be displayed. Images can be created through scanning hand-rendered drawings or photographs and then manipulating them. To complete either task, designers use PhotoShop to create, fix/repair an original image or alter an image.

COMMON ASSESSMENTS/CULMINATING ACTIVITY

Students will find and incorporate high resolution images in their work by simply placing the images within a grid layout.
Students will incorporate high resolution images in their work by manipulating them in PhotoShop to fit within their original idea and design.
Students will incorporate a hand rendered illustration within one of their designs by scanning it. The image can then be further altered in PhotoShop. The image should be original and created for an original design.

KNOW	DO
• Identify how designers use images in their work. Sometimes these images are appropriated or original. • Compare the differences in image quality. The quality of the image affects the quality and the effectiveness of the final product. • Determine where the final product will be displayed. Where the final product will be displayed (digital media or print) will determine quality of the image.	• Demonstrate understanding of the software program by manipulating or repairing an original photograph. • Demonstrate understanding of the software program by manipulating or repairing an original hand-rendered illustration. • Students will use an appropriated image in a design and learn how to alter it and credit the artist's work in their design.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	**TIME FRAME:**	4 weeks
UNIT #3:	Digital Illustration	**GRADE:**	9-12

STANDARDS:

PA Arts & Humanities Standards, Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts, Grade 12:

9.1.12 A
- Know and use the elements and principles of each art form to create works in the arts and humanities.

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

9.1.12 J
- Analyze and evaluate the use of traditional and contemporary technologies for producing, performing and exhibiting works in the arts or the works of others.

9.1.12 K
- Analyze and evaluate the use of traditional and contemporary technologies in furthering knowledge and understanding in the humanities.

PA Arts & Humanities Standards, Historical and Cultural Contexts, Grade 12:

9.2.12 B
- Relate works in the arts chronologically to historical.

9.2.12 C
- Relate works in the arts to varying styles and genre and to the periods in which they were created.

PA Arts & Humanities Standards, Critical Response, Grade 12:

9.3.12 B
- Determine and apply criteria to a person's work and works of others in the arts.

9.3.12 C
- Apply systems of classification for interpreting works in the arts and forming a critical response.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	TIME FRAME:	4 weeks
UNIT #3:	Digital Illustration	GRADE:	9-12

UNDERSTANDINGS

In order to create an effective design in either print or in digital medias, each media has certain areas of concern that reflect the media's properties (ie; display fonts verses print fonts, color spectrums). There are several different types and purposes for an illustrated design piece. No matter the function of the design, basic guidelines must be used to create an accurate and legible design in print with a focal point.

COMMON ASSESSMENTS/CULMINATING ACTIVITY

Students will find and incorporate high resolution images in their work by simply placing the images within a layout.
Students will incorporate high resolution images in their work by manipulating them in PhotoShop to fit within their original idea and design.
Students will incorporate a hand rendered illustration within one of their designs by scanning it. The image can then be further altered in PhotoShop. The image should be original and created for an original design.

KNOW	DO
• Determine why illustration is a central component to an informative or other design. • Distinguish why the illustration of the design should portray a clear message and should match the tone of the information of the overall design. • Examine how the illustration of a design typically creates a focal point to target an audience.	• Students will research and identify the similarities and differences of using print versus digital media and the audiences that they target. • Students will interpret and evaluate the message the designer is presenting in their illustrated design. • Students will create their clear and effective illustrated design by applying design guidelines to organize their work in both in print and in digital media.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design		TIME FRAME:	9 weeks
UNIT #4:	Object Design: Three-Dimensional Products		GRADE:	9-12

STANDARDS:

PA Arts & Humanities Standards, Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts, Grade 12:

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

9.1.12 C
- Integrate and apply advanced vocabulary to the arts forms.

9.1.12 E
- Analyze how historical events and culture impact forms, techniques and purposes of works in the arts.

9.1.12 F
- Know and apply appropriate vocabulary used between social studies and the arts and humanities.

9.1.12 G
- Relate works in the arts to geographic regions.

9.1.12 H
- Incorporate the effective and safe use of materials, equipment and tools into the production of works in the arts at work and performance spaces.

9.1.12 J
- Analyze and evaluate the use of traditional and contemporary technologies for producing, performing and exhibiting works in the arts or the works of others.

9.1.12 K
- Analyze and evaluate the use of traditional and contemporary technologies in furthering knowledge and understanding in the humanities.

PA Arts & Humanities Standards, Historical and Cultural Contexts, Grade 12:

9.2.12 C
- Relate works in the arts to varying styles and genre and to the periods in which they were created.

PA Arts & Humanities Standards, Critical Response, Grade 12:

9.3.12 B
- Determine and apply criteria to a person's work and works of others in the arts

9.3.12 C
- Apply systems of classification for interpreting works in the arts and forming a critical response.

PA Arts & Humanities Standards, Aesthetic Response, Grade 12:

9.4.12 B
- Describe and analyze the effects that works in the arts have on groups, individuals and the culture.

9.4.12 C
- Compare and contrast the attributes of various audiences' environments as they influence individual aesthetic response.

KNOW, UNDERSTAND, DO

| **COURSE:** | Digital Design | **TIME FRAME:** | 9 weeks |
| **UNIT #4:** | Object Design: Three-Dimensional Products | **GRADE:** | 9-12 |

UNDERSTANDINGS

An object's design is first characterized by its function and then its aesthetics. Often objects are redesigned to better suit the needs (and desires) of a targeted population. Businesses often hire designers to create a line of products/objects for them that consistently coveys their message and personality. Object design can be any three-dimensional object which includes a wide variety of objects from industrial, transportation furniture, and fashion design.

COMMON ASSESSMENTS/CULMINATING ACTIVITY

Students will find and incorporate high resolution images in their work by simply placing the images within a layout to fit onto three-dimensional objects to create a product or product line.
Students will brainstorm and develop ideas to create a prototype for a three-dimensional object that solves a human need or desire.
Students will brainstorm and develop ideas to create a new prototype for a three-dimensional object that meets the criteria of modern design; sustainable, ergonomic, socially beneficial, accessible, affordable, well made, emotionally resonant, enduring, aesthetic, and functional.

KNOW	DO
• Compare different kinds of object design and understand that object design is a three-dimensional type of design that includes industrial, product, furniture, transportation, and fashion design. • Recognize that designers create objects to satisfy human needs or desires with a focus on the object's function. • Identify how designers create and communicate the personality or identity of a company through the use of objects.	• Define and identify the different types of object design by finding professional examples and categorizing them. • Identify professional object designs and explain their use either orally or in written form. • Use basic design guidelines and software to create a two-dimension label to fit on a three-dimensional object. • Create a line of products that convey the company's identity and personality that display a theme and a sense of unity. • Redesign a more functional object to better suit the needs of a special population (ie: hand tools for senior citizens).

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	**TIME FRAME:**	9 weeks
UNIT #5:	Spatial Design: Interior/Space and Exterior/Place	**GRADE:**	9-12

STANDARDS:

PA Arts & Humanities Standards, Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts, Grade 12:

9.1.12 A
- Know and use the elements and principles of each art form to create works in the arts and humanities.

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

9.1.12 C
- Integrate and apply advanced vocabulary to the arts forms.

PA Arts & Humanities Standards, Historical and Cultural Contexts, Grade 12:

9.2.12 A
- Explain the historical, cultural and social context of an individual work in the arts.

9.2.12 E
- Analyze how historical events and culture impact forms, techniques and purposes of works in the arts.

PA Arts & Humanities Standards, Critical Response, Grade 12:

9.3.12 D
- Analyze and interpret works in the arts and humanities from different societies using culturally specific vocabulary of critical response.

PA Arts & Humanities Standards, Aesthetic Response, Grade 12:

9.4.12 B
- Describe and analyze the effects that works in the arts have on groups, individuals and the culture.

9.4.12 C
- Compare and contrast the attributes of various audiences' environments as they influence individual aesthetic response.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	TIME FRAME:	9 weeks
UNIT #5:	Spatial Design: Interior/Space and Exterior/Place	GRADE:	9-12

UNDERSTANDINGS

Basic guidelines must be used to create a functional interior space. There are similarities and differences in the approaches for creating a design for a small space or a very large interior space. Digital programs can help a design create a mood/tone for the interior or exterior space as well as plan for its function.

COMMON ASSESSMENTS/CULMINATING ACTIVITY

Students will find and incorporate high resolution images in their work by creating a presentation board (or poster) designing the functionality of an interior or exterior space, using free design software to render a floor plan or map of the space.

KNOW	DO
- Compare 4-D designs; 4-D design includes architecture, urban planning, exhibit design, landscape, and interior design. - Examine how the design of an interior space is determined by its location, its purpose, and then its aesthetics such as exhibit and set design and interior design. - Identify different types and purposes for designing an exterior space such as architecture, urban planning, landscaping. - Recognize that the design of an exterior space is determined by its location, its purpose, and then its aesthetics.	- Students will demonstrate their understanding of designing an interior space by creating a floor plan of a space traditional by planning for its functionality. Also, price its décor and materials within a budget. - Demonstrate understanding of the software program by creating a floor plan of an interior space. - Students will create an exhibit or a display case for a local event. A presentation board can be created to display the designing process. - Students will demonstrate their understanding of designing an exterior space by creating a floor plan of a space traditional by planning for its functionality. Also, price its materials of its construction within a budget. - Demonstrate understanding of the software program by creating a floor plan or a map of an exterior space or place. - Students will create a graphic/image of an ideal place or local place; planning for the placement and function of the businesses involved, county ordinances and other laws, and traffic flow.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	**TIME FRAME:**	6 weeks
UNIT #6:	Interactive Design	**GRADE:**	9-12

STANDARDS:

PA Arts & Humanities Standards, Production, Performance and Exhibition of Dance, Music, Theatre and Visual Arts, Grade 12:

9.1.12 A
- Know and use the elements and principles of each art form to create works in the arts and humanities.

9.1.12 C
- Integrate and apply advanced vocabulary to the arts forms.

PA Arts & Humanities Standards, Historical and Cultural Contexts, Grade 12:

9.2.12 A
- Explain the historical, cultural and social context of an individual work in the arts.

9.2.12 E
- Analyze how historical events and culture impact forms, techniques and purposes of works in the arts.

PA Arts & Humanities Standards, Critical Response, Grade 12:

9.3.12 D
- Analyze and interpret works in the arts and humanities from different societies using culturally specific vocabulary of critical response.

PA Arts & Humanities Standards, Aesthetic Response , Grade 12:

9.4.12 B
- Describe and analyze the effects that works in the arts have on groups, individuals and the culture.
- Compare and contrast the attributes of various audiences' environments as they influence individual aesthetic response.

KNOW, UNDERSTAND, DO

COURSE:	Digital Design	**TIME FRAME:**	6 weeks
UNIT #6:	Interactive Design	**GRADE:**	9-12

UNDERSTANDINGS

Basic guidelines must be used to create a smoothly operable and understandable, tangible and interactive design. There are similarities and differences in the approaches for creating tangible (reality) and intangible (virtual) interactive designs. In order to create an effective, tangible experience each media has certain areas of concern that reflect the media's properties (ie; display fonts vs print fonts (resolution); actual texture vs simulated texture; visual vs other senses, space place).

COMMON ASSESSMENTS/CULMINATING ACTIVITY

KNOW	**DO**
• Compare interactive five-designs. 5-D design includes virtual design, interactive games, toy design, theme parks, an event, and interactive exhibits/museums. • Explain how interactive design has some interactive component that allows the participator to control the final outcome of the experience through tangible (reality) or intangible (virtual) means such as interactive games, toy design, theme parks, an event, and exhibits/museums. • Identify that the purpose of interactive design is to have the tangible interaction, participation and experience a memorable event that one is willing to experience again. • Identify the current medias that designers use, the audiences, and the purposes that are targeted through the functions of the tangible interactive components.	• Students will research and identify the similarities and differences of the purposes, audiences and the components used to create a desired tangible interactive piece. • Students will interpret and evaluate the effectiveness and the function of a professional designer's tangible interactive work. • Students will create their own tangible, functional, interactive design (or plan for one with a presentation board) through the use of software programs and other media or materials. • Students will create their own intangible/virtual, functional, interactive design (or plan for one with a presentation board) through the use of software programs and other media or materials.

Adaptations/Modifications for Students with I.E.P.s

Adaptations or modifications to this planned course will allow exceptional students to earn credits toward graduation or develop skills necessary to make a transition from the school environment to community life and employment. The I.E.P. team has determined that modifications to this planned course will meet the student's I.E.P. needs.

Adaptations/Modifications may include but are not limited to:

INSTRUCTION CONTENT

- Modification of instructional content and/or instructional approaches
- Modification or deletion of some of the essential elements

SETTING

- Preferential seating

METHODS

- Additional clarification of content
- Occasional need for one to one instruction
- Minor adjustments or pacing according to the student's rate of mastery
- Written work is difficult, use verbal/oral approaches
- Modifications of assignments/testing
- Reasonable extensions of time for task/project completion
- Assignment sheet/notebook
- Modified/adjusted mastery rates
- Modified/adjusted grading criteria
- Retesting opportunities

MATERIALS

- Supplemental texts and materials
- Large print materials for visually impaired students
- Outlines and/or study sheets
- Carbonless notebook paper
- Manipulative learning materials
- Alternatives to writing (tape recorder/calculator)