DELAWARE VALLEY SCHOOL DISTRICT

PLANNED INSTRUCTION

A PLANNED COURSE FOR:

3-D Design

Curriculum writing committee:

Christine Sweeney

Grade Level: 10-12

Date of Board Approval: ____2021_____

Course Weighting: 3D Design

Uses a points system

Major Projects 3 per quarter	100 pts
Planning Sketches 3 per quarter	25 pts
Skill Building Activities as needed for each unit	25-50 pts
Critique, discussion, class participation, ongoing	2-25 pts

Curriculum Map

Overview:

Exploring various sculptural forms' appearance, artistic intent, materials and processes will establish an awareness of how forms exist in space by analyzing relationships among design, materials and processes. Study and application of concepts of abstraction and stylization will provide a framework for the creation of projects with criteria that targets these concepts and the specific three dimensional creation processes of modelling, construction and reduction carving. Various tools, media, targeted design processes along with safe and productive studio practices will be explored and applied throughout the course. The role of craftsmanship as an important artistic component will be explored and applied. The process of formal and informal objective critique will be learned and applied to formative discussion and analysis, and applied summatively in evaluation and reflection activities.

Marking Period 1 Goals:
Understanding of:

- Elements and principles of design
- Abstract art
- Stylization
- Representational Art
- Sculptural processes of carving and modelling
- Effective and safe material and tool use
- Art criticism, evaluation and reflection
- Vocabulary
- Craftsmanship
- Planning and revision as part of the creation process

Marking Period 2 Goals:
Understanding of:

- Elements and principles of design
- Representational Art
- Functional Art
- Sculptural processes of modelling and construction
- Effective and safe material and tool use
- Art criticism, evaluation and reflection
- Vocabulary
- Craftsmanship
- Planning and revision as part of the creation process

Big Ideas:

- Artists use the elements of art and the principles of design to guide development and application of a variety of three dimensional design techniques and approaches.

- Artists use tools and resources as well as their own experiences and skills to create art. There are formal and informal processes used to assess the quality of works in the arts.

Textbook and Supplemental Resources: Various art supplies, not limited to, but including: drawing paper, drawing pencils, paint, clay, cardboard, adhesives, plaster of paris, carving tools, cutting tools, found and repurposed objects and materials, balsa wood, paper mache, internet access, printer.

Curriculum Plan

UNIT: Critique and Analysis of Sculptural Form and Design **Time/Days:+/- 3**

Standards: 9.1.12.A; 9.1.12.C; 9.1.12.D; 9.2.12.C; 9.1.12.J, 9.3.12.A; 9.3.12.B; 9.2.12.D
Anchors: M04.C-G.1.1.1, M04.C- G.1.2.3, CC.2.4.2.A.1
PACS ELA Assessment Anchors: E08.B-C.3.1, E08.B-V.4.1, E08.C.1.1.
PA Information Technology Standards: 15.4.12.A
Eligible Content: Elements and Principles of Design, sculptural materials and processes, formal and informal critique and analysis procedure.

Objectives (dok levels):

- Students will identify examples of various sculptural styles, materials and processes. (DOK Level One)
- Students will compare and contrast qualities of various sculptural styles, materials and processes. (DOK Level Three)
- Students will utilize steps of formal critique to analyze and evaluate artworks. (DOK Level Four)
- Students will appropriately use art vocabulary in viewing and describing a work of art (DOK Level Two)

Core Activities and corresponding instructional methods:

1. Introduction
    - Direct instruction of Elements and Principles of Design, representational sculptures, abstract sculptures made with a variety of materials and sculptural processes.
    - Teacher led discussion of PowerPoint highlighting works of art for each Element and Principle.
    - Direct instruction of a four step formal critique process.

2. Practice and Refinement
- Teacher led discussion demonstrating application of critique process to sculptural examples.

3. Critique and Analysis Activity
- Peer groups will analyze examples of sculptures citing evidence for their results.
- Groups will share results with class and entertain questions and challenges.

• Students will classify examples of past student projects following the course curriculum.

Assessments:

Diagnostic:	Q&A before and during initial presentation
Formative:	Teacher observation of discussion development and participation
Summative:	Participation in peer critique activity and presentation
	Accurate analysis of examples using appropriate vocabulary

UNIT: Abstract non-objective construction sculpture **Time/Days: +/-11**

Standards: 9.1.12.A; 9.1.12.B; 9.1.12.C; 9.1.12.D; 9.1.12.G; 9.2.12.C; 9.3.12.B; 9.2.12.D
Anchors: M04.C-G.1.1.1, M04.C- G.1.2.3, M06.A- R.1.1.1, CC.2.4.2.A.1
PACS ELA Assessment Anchors: E08.B-C.3.1, E08.B-V.4.1, E08.C.1.1.
Eligible Content: Elements and Principles of Design, component and construction process, safe and efficient use of tools and materials, abstraction, critique.

Objectives (dok levels):

- Students will recognize attributes of abstract forms. (DOK Level One)
- Students will investigate possible designs for abstract forms. (DOK Level Three)
- Students will use tools safely and effectively. (DOK Level One)
- Students will devise sequential construction plan (DOK Level Three)
- Students will use appropriate vocabulary and criteria when critiquing works. (DOK Level Two)

Core Activities and corresponding instructional methods:

1. Introduction
    - Teacher will review visual and conceptual attributes of non-objective abstract forms and the sculptural process of construction. PowerPoint presentation.
    - Students will examine and analyze the role of the elements and principles of design in a variety of abstract forms. PowerPoint examples.
    - Teacher will show examples of styrofoam cup sculptures and discuss how cutting

and reassembling pieces can create a wide array of abstract forms.
- Teacher will lead student design analysis of styrofoam cup sculpture examples.
- Teacher will distribute and review vocabulary list of design and sculpture terms.

2. Practice and Refinement
    - Teacher will demonstrate safe use of exacto knives and scissors.
    - Teacher will demonstrate how to cut up a cup into component shapes that can be reassembled into a sculptural form, using slot construction and glue joining methods.
    - Students will practice cutting and reassembling a cup.
    - Students will explore the use of variation on a theme, repetition, unity and variety, as they continue to practice cutting and assembling.
    - Students will decide on a basic design theme based on selected elements and principles and complete the cutting and assembly process.

3. Critique and Analysis Activity

- Mid-point critique will encourage objective evaluation of the design plan and building process and allow for modifications, the teacher will meet one on one with each student and students will share thoughts with peers.
- Final critique will be held to allow students to explain design choices and evaluate works using project criteria.

Assessments

Diagnostic: Q&A before and during the initial presentation.
Formative: Teacher observation of practice cutting and assembly, mid-point critique.
Summative: Final critique and evaluation using project rubric.

UNIT: Nature Abstraction Plaster Carving **Time/Days: +/-15**

Standards: 9.1.12.A; 9.1.12.B; 9.1.12.C; 9.1.12.D; 9.1.12.G; 9.2.12.C; 9.3.12.B; 9.2.12.D
Anchors: M04.C-G.1.1.1, M04.C- G.1.2.3, M06.A- R.1.1.1, CC.2.4.2.A.1
PACS ELA Assessment Anchors: E08.B-C.3.1, E08.B-V.4.1, E08.C.1.1.
Eligible Content: Elements and Principles of Design, reduction carving process, safe,

efficient use of tools and materials, concept of abstraction, and analytical critique.

Objectives (dok levels):

- Students will identify attributes of abstraction. (DOK Level One)
- Students will distinguish between nonobjective abstraction and abstraction based on objects or ideas. (DOK level two)
- Students will determine the artist's intention based on visual evidence. (DOK Level Three)
- Students will solve a sequence of carving problems and demonstrate safe and effective carving technique. (DOK Level Two)
- Students will design a form based on analysis of attributes of a natural object, process or event. (DOK Level Four)
- Students will mix and pour plaster into a devised mold. (DOK Level Two)

Core Activities and corresponding instructional methods:

1. Introduction

- Teacher will review attributes of abstract form and the process of reduction carving.
- Teacher will show examples of abstracted forms with bases in real objects or ideas. Students will compare and contrast the two approaches to abstraction. PowerPoint presentation.
- Teacher will show PowerPoint "Henry Moore, Brancusi and Barbara Hepworth." Students will analyze design and abstract qualities of their works.

2. Exploration and Refinement

- Teacher will show a sequential abstraction of a natural form as it moves away from detailed realism and towards distillation of its most important concepts and visual expression.
- Students will do several practice abstractions of ordinary Natural forms.
- Students will select a natural form, idea or phenomena as the basis for their abstract sculpture.
- Students will analyze and list prominent and expressive attributes of their form, idea or phenomena and apply concepts of abstraction in order to make the transformation to abstraction. Sketch will be used as loose reference for the carving process.
- Continuum from realism to abstraction

3. Mixing, Pouring and Carving

- Teacher will demonstrate how to mix, pour and carve plaster using a variety of carving tools, files and sandpaper. How to mix and pour plaster
- Students will devise a container that matches the overall shape of their design idea.

- Students will help each other mix and pour their portion of plaster or Creastone plaster material.
- Teacher will demonstrate safe and effective use of various carving tools and sandpaper, goggles and dust masks, and discuss the process of carving from general to specific based on plans and sketches of the final desired form.
- Students will carve their forms, following design sketches and a sequencing plan, working from general to specific.

4. Critique and reflection

- Mid-Point critique will offer an opportunity to evaluate works in progress and make modifications to design or intent. Students will share thoughts with teacher and peers.
- Final Critique will evaluate finished works using project criteria and objective commentary shared among students as students present their works to the class and explain their abstract design choices.

Assessment:

Diagnostic: Q&A before and during review of abstract forms
Formative: Participation in discussion and analysis of abstract forms, nature abstraction process and PowerPoint presentation, teacher observation and review of "abstraction process worksheet, observation of plans and sketches, mid-point critique of works in progress.
Summative: correct mixing and pouring of plaster, safe and effective use of tools, final critique and evaluation using project rubric.

UNIT: Stylized Figure **Time/Days: +/-15**

Standards: 9.1.12.A; 9.1.12.B; 9.1.12.C; 9.1.12.D; 9.1.12.G; 9.2.12.C; 9.3.12.B; 9.2.12.D
Anchors :M04.C-G.1.1.1, M04.C- G.1.2.3, M06.A- R.1.1.1, CC.2.4.2.A.1
Eligible Content: Stylization process, human figure anatomy, expressive movement and body language, wire armature, modelled form, paverpol surface treatment.

Objectives:

- Students will recognize visual qualities of stylized forms. (DOK Level One)
- Students will modify shapes and proportions of the human form. (DOK Level Two)
- Students will apply concepts of stylization and body language during the

figure design process. (DOK Level Four)
- Students will construct armature structure from wire and add modelled form with foil and tape. (DOK Level Two)
- Students will analyze, evaluate and reflect on artworks and criteria. (DOK Level Four)

Core Activities and Corresponding Instructional Methods:

1. Introduction

- Teacher will show examples of stylization as applied to a variety of subject matter and identify tenets of this design process. PowerPoint presentation.
- Teacher will show additional examples and invite students to identify stylization attributes and make analytical commentary. PowerPoint presentation.
- Teacher will lead students through a step by step example of the stylization process.
- Teacher will show examples of stylized human forms and students will identify attributes and analyze possible design approaches.
- Students will complete a guided worksheet on stylizing the human form. How to Stylize the Human Figure

2. Design and Build the Form

- Teacher will show examples of the project and demonstrate how to build a simple wire armature. Students will follow along and build a practice wire armature. How to build a wire figure
- Students will experiment with additional figures with various proportional changes before selecting their final form.
- Demonstrate how to add volume to wire armature using foil, tape and/or tissue paper.
- Students will add volume to their forms and decide on final position/body language.
- Demonstrate how to use Paverpol dipping solution. How to use Paverpol Solution, Using paverpol solution video

3. Critique and Reflection

- Mid-Point critique will offer an opportunity to evaluate works in progress and make modifications to design or intent. Students will share thoughts with teacher and peers.
- Final Critique will evaluate finished works using project criteria and objective commentary shared among students as students present their works to the class and explain their abstract design choices.

Assessment:

Diagnostic: Q&A before and during initial presentation

Formative: Participation in discussion and analysis of stylized forms, the stylization process and PowerPoint presentation, teacher observation and review of "stylization process worksheet, observation of practice armatures and final armature, mid-point critique of works in progress.
Summative: effective use of tools and materials, final critique and evaluation using project rubric.

UNIT: Personality Bird **Time/Days: +/-15**

Standards: 9.1.12.A; 9.1.12.B; 9.1.12.C; 9.1.12.D; 9.2.12.C; 9.3.12.B; 9.2.12.D, 9.4.12.D
Anchors: M04.C-G.1.1.1, M04.C- G.1.2.3, M06.A- R.1.1.1, CC.2.4.2.A.1
Eligible Content: Stylization design process, bird anatomy, self-analysis, symbolism, expressiveness, modeling sculptural process, basic color theory and paint mixing.

Objectives:

- Students will identify visual qualities of stylized design. (DOK 1)
- Students will analyze personal attributes and characteristics. (DOK 4)
- Students will apply concepts of stylization to anatomical and representational components. (DOK 3)
- Students will construct a form following modeling process. (DOK 2)
- Students will illustrate chosen themes by selecting materials and devising methods of application. (DOK 4)
- Students will critique works and make improvements guided by analysis. (DOK 4)

Core Activities and Corresponding Instructional Methods:

1. Introduction
   - Teacher will show PowerPoint "If I Were a Bird", review the stylization process and discuss application to bird anatomy.
   - Show examples of projects and discuss expressive qualities that establish identity.

2. Idea Generation
   - Guided activity: analyze and list personality, physical attributes and other personal qualities.
   - Demonstrate how to assign visual expression to personal qualities using elimination, exaggeration and/or embellishment. Students will brainstorm and sketch possible ideas and related images.

3. Design process
    - Distribute bird anatomy handouts for reference. Demonstrate how to select and modify anatomical components according to design ideas. Students will design individual anatomical components and sketch the final version of their bird.

4. Construction

    - Demonstrate how to use aluminum foil, cardboard and tape to build the basic form of the bird's body, head, wings, tail. Students will build birds following their design sketch and proportions.
    - Discuss materials selection for creating expressive components and details. Students will select, manipulate and apply additional materials to the bird's form.
    - Review basic color theory and paint mixing process.
    - Students will select colors that enhance expressive and personal qualities of their birds. Students will paint birds and add final details. Embellishments such as sequins, feathers, beads, straw, and objects formed with self-hardening clay and painted can be added to enhance final expression and appearance.

5. Critique and Reflection

    - Mid-Point critique will offer an opportunity to evaluate works in progress and make modifications to design or intent. Students will share thoughts with the teacher and peers.
    - Final Critique will evaluate finished works using rubric with project criteria and objective commentary shared among students as students present their works to the class and explain their expressive design choices.

Assessment:

Diagnostic: Q&A before and during initial presentation of project and basic concepts.
Formative: Personality reflection and analysis worksheet, observation of design process, observation of building process, mid-point critique and discussion with peers.
Summative: Final Critique using project rubric, student presentation and explanation of finished Personality Bird.

UNIT: Cardboard Icon **Time/Days: +/-16**

Standards: 9.1.12.A; 9.1.12.B; 9.1.12.C; 9.1.12.D; 9.2.12.C; 9.3.12.B; 9.2.12.D, 9.4.12.D
Anchors: M04.C-G.1.1.1, M04.C- G.1.2.3, M06.A- R.1.1.1, CC.2.4.2.A.1
PACS ELA Assessment Anchors: E08.B-C.3.1, E08.B-V.4.1, E08.C.1.1.
Eligible Content: Iconic objects, Pop Art Movement, recontextualization, proportional enlargement, structural analysis, construction sculptural method, process problem solving, safe use of tools, craftsmanship.

Objectives:

- Students will identify visual qualities of the Pop Art Movement . (DOK 1)
- Students will identify and classify icon status. (DOK 2)
- Students will analyze components that make up a complete form. (DOK 3)
- Students will create a construction plan based on understanding the order of operations. (DOK 4)
- Students will utilize tools and materials safely and effectively. (DOK 2)
- Students will critique works and make improvements guided by analysis. (DOK 4)

Core Activities and Corresponding Instructional Methods:

1. Introduction
    - Teacher will show PowerPoint “Pop Art and Claus Oldenburg”, discuss attributes of pop art, iconography, recontextualization of objects.
    - Show examples of the project and discuss classification of iconic objects, construction methods and materials.

2. Idea Generation
    - Guided activity: make a list of iconic objects and justify choices.
    - Select object to enlarge, gather photos or actual object to use as reference.

3. Design process
    - Demonstrate how to differentiate among component parts that make up the whole form.
    - Students will identify component parts of their object and make a construction plan based on order operations.
    - Demonstrate safe and efficient use of exacto knives, cutting boards, cardboard, hot glue and scissors.
    - Demonstrate various construction methods: score and fold, score and curve, cutting with and against the grain of corrugated cardboard, tab and flange, clean alignment and seam gluing.

4. Construction

- Measure each component part and make precise proportional enlargement.
- Measure out and draw each piece onto cardboard and cut it out with an exacto knife or scissors.
- Assemble pieces using the order of operations plan.
- Apply strict craftsmanship criteria.

5. Critique and Reflection

- Mid-Point critique will offer an opportunity to evaluate works in progress and make modifications to design or process. Students will share thoughts with teacher and peers.
- Final Critique will evaluate finished works using rubric with project criteria and objective commentary shared among students as students present their works to the class and explain their building process.

Assessment:

Diagnostic: Q&A before and during initial presentation of project and basic concepts.
Formative: Icon identification and form analysis worksheet, observation of design process, observation of building process, mid-point critique and discussion with peers.
Summative: Final Critique using project rubric, student presentation and explanation of finished enlarged Icon Project.

UNIT: Japanese Lantern **Time/Days: +/-15**

Standards: 9.1.12.A; 9.1.12.B; 9.1.12.C; 9.1.12.D; 9.2.12.C; 9.1.12.K; 9.3.12.B; 9.2.12.D, 9.4.12.D
Anchors: M04.C-G.1.1.1, M04.C- G.1.2.3, M06.A- R.1.1.1, CC.2.4.2.A.1
Eligible Content: Japanese Aesthetic, functional objects, structural analysis, construction sculptural method, process problem solving, safe use of tools, craftsmanship.

Objectives:

- Students will identify visual qualities of the Japanese Aesthetic. (DOK 1)
- Students will identify visual qualities of wood construction and joining methods. (DOK 1)
- Students will analyze components that make up a complete form. (DOK 3)
- Students will create a construction plan based on understanding the order of operations. (DOK 4)
- Students will design balanced composition/scene following and interpreting aesthetic qualities. (DOK 4)
- Students will utilize tools and materials safely and effectively. (DOK 2)
- Students will critique works and make improvements guided by analysis. (DOK 4)

Core Activities and Corresponding Instructional Methods:

Introduction

- Teacher will show examples of Japanese lanterns and guide analysis of design qualities.
- Show examples of other Japanese craft and art objects and find common aesthetic qualities. PowerPoint presentation.
- Present brief historical overview of Japanese aesthetics of balance, functionality, and respect for natural materials. PowerPoint Presentation.

Idea Generation

- Guided activity: read basic construction plan and explore possible modifications. explore possible screen designs using simple shapes based on nature. Sketch possible ideas.

Design process

- Select and refine construction modifications, making precise measurement notes and construction plan. Follow schematic plans handout for basic components and process.
- Select and refine screen design, choose paper colors.

4. Construction

    - Demonstrate how to precisely measure and cut balsa wood with small mitre saws and exacto knives.
    - Students will measure and cut all necessary construction components for lantern shade and base.
    - Demonstrate how to assemble components using gridded mat and tacky glue.
    - Student will assemble components.
    - Demonstrate how to cut and glue designs on each screen and how to glue into each frame, students will do the same.

5. Critique and Reflection

- Mid-Point critique will offer an opportunity to evaluate works in progress and make modifications to design or process. Students will share thoughts with teacher and peers.
- Final Critique will evaluate finished works using rubric with project criteria and objective commentary shared among students as students present their works to the class and explain their design choices.

Assessment:

Diagnostic: Q&A before and during initial presentation of project and basic concepts.
Formative: observation of design process, observation of building process, mid-point critique and discussion with peers.
Summative: Final Critique using project rubric, student presentation and explanation of finished Lantern Project.