

MANCHESTER REGIONAL HIGH SCHOOL

MATERIALS & DESIGN I  
FINE ARTS EDUCATION

REVISED  
2015

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MANCHESTER REGIONAL HIGH SCHOOL

A. COURSE TITLES: MATERIALS & DESIGN I

B. COURSE PROFICIENCIES:

After completing a course in Materials & Design 1, the student should be able to:

1. Manipulate clay tools and techniques to produce a functional ceramic project.
2. Use jewelry tools and techniques to produce one pierced pierce.
3. Use yarn, fabric and dyes to produce many functional items.
4. The student will increase his/her knowledge in the area of design.
5. Analyze and critique their projects as well as other works of A1i.
6. Learn the process of relief printing.

Students may use simple tools including jeweler's saw, latch hook, .files, linoleum cutters and blades.

C. EVALUATION ACTIVITIES

Evaluation will be based on the following weighted components:

Projects and Tests .....	50%
Class Participation .....	50%

D. FINAL ASSESSMENT

**COURSE DESCRIPTION: Materials & Design I**

Materials & Design I is a one year course which includes the study of Design, Ceramics, Printing, Metals, and Textiles.

The purpose of this course is to provide students with the experience of working creatively with various materials to produce handcrafted items which are both decorative and utilitarian in concept. These items should exemplify skill in the proper use of tools as well as fine workmanship. Students are exposed to the processes involved in each topic and career opportunities related to the subject.

**COURSE DATA:**

Length of Course	Full Year
Credits	Five
Periods Per Week	Five
Classification	Elective-Grades9-12
Prerequisite	None

**GRADING STRUCTURE:**

Benchmark for mastery of course content is 65%; content mastery for students with IEP's may be less than the Board of Education approved minimum for regular education students.

**EVALUATION:**

The purposes of evaluation are to provide information about student progress and determine if students can work with the tools and materials in each unit. Teachers will evaluate student progress based on hands-on projects, class participation, quizzes, and final exams.

## COURSE OUTLINE: Materials & Design 1

### GUIDELINES FOR HEALTH AND SAFETY

The Fine Arts and Crafts program include in its curriculum a general guideline for students' health and safety in the Art room. This will be introduced at the beginning of the school year in each section of Crafts. The purpose of this lesson is to make the students aware of the necessity for a safe classroom environment and how they can contribute to this end.

Guidelines for Students' Health and Safety in the Crafts Room i.e. Right to Know.

Students will be introduced to the following areas:

1. Exposure to hazardous substances occurs by three routes-Inhalation (breathing), Ingestion (swallowing), and Absorption (skin contact).
2. Illness from exposure to hazardous substances can result in acute illness or chronic illness.
3. Some general rules for Safety are:  
DO NOT sniff art supplies.  
DO NOT eat in the crafts room.  
DO NOT paint on skin.  
DO NOT use found objects or products.  
WASH HANDS after working, for good hygiene.  
READ PRODUCT LABELS and "RIGHT TO KNOW" LABELS. TURN FAN ON AND OPEN WINDOW WHEN APPROPRIATE.  
Follow directions given at beginning of each unit.

ACTIVITY & Final Assessment:

Design a collage to represent safety procedures in the crafts room.

## **COURSE OUTLINE: Materials & Design I**

### **UNIT I: Design**

#### **A. Unit Goals:**

1. Define the elements of design as single parts.
2. Identify the elements of design and apply the various principles of design to them to discuss objects of good design.
3. Experience through related projects, the visual importance of the individual elements.
4. Apply the students' knowledge of design to create original designs for crafts projects.

#### **STANDARDS**

**1.1.12D.1-2**

**1.3.12D.1-5**

**1.4.12A1-4**

**1.4.12B.1, 2**

Time frame 8-10 weeks

#### **B. Student Outcomes:**

The student will be able, to the best of his/her ability:

1. Acquire terminology predicted on design principles.
2. Isolate independent design elements and explore their functions.
3. Combine design elements and apply the principles of design to them.
4. Indicate skills when working with materials that are necessary to create designs.
5. Create a two-color linoleum print.

C. Instructional materials, methods and tools that will be utilized in studying design:

1. pencils
2. markers
3. various forms of paper and cardboard
4. glue
5. tempera paint
6. measuring instruments (ruler, T-square, compass)
7. template
8. brush
9. linoleum
10. printing ink
11. linoleum cutters
12. light table

D. Suggested Activities:

Explore each element of design in various combinations to provide students with an awareness of the artistic elements, applying the principles of design to them, and the problems and solutions inherent with each topic explored.

Suggested problems could include:

1. Line
  - a. Make a design by using only lines. (symmetrical +a-symmetrical)
  - b. Create a reversal design using lines.
  - c. Create a positive & negative design.
2. Texture
  - a. Make a collection of surfaces that are smooth/rough and create a collage.
  - b. Draw and render various surfaces-sponges, wood, cord, walls.
  - c. Make a magazine color collage.
3. Color
  - a. Make a color wheel.
  - b. Monochromatic scales---20 squares adding white or black.
  - c. Make tints, shades and tones in an abstract design.
  - d. Use a complimentary color scheme and render one realistically.

4. Shape
  - a. Cut a circle into parts and separate each segment.
  - b. Draw shapes with lines and create a positive+ negative design.
  - c. Make a design using only one shape.
  - d. Cut a stencil to create a pattern design.
  
5. Repetition
  - a. Create a design on a piece of linoleum.
  - b. Create a pattern and transfer it onto linoleum.
  - c. Use printing inks and create a two-color linoleum print.

Some of the endless experiences students may be given to introduce them to design have been touched. It should be noted that these experiences should be kept short and they should be retained for future referral as a source of design for various crafts related projects.

#### E. Methods of Evaluation

1. Test on terminology
2. Group and written critiques
3. Class participation
4. Teacher observation
5. Hands-on projects.

#### F. Final Assessments:

Color wheel, reversal design, vocabulary quiz (positive+ negative design), and a two-color linoleum print.

## **UNIT II: Ceramics**

### A. Unit Goals:

- I. Define the terms used in ceramics.
2. Perform assignments using the pinch, slab, and coil methods of construction.
3. Understand the process of transforming clay into ceramics through an intense heat process.
4. Apply design concepts to the construction and decoration of the ceramic piece.
5. Exhibit workmanship of materials.
6. Apply glazes with an understanding of color concept.

### **STANDARDS**

**1.1.12D1-2**

**1.3.12D.1,3,4,5**

**1.4.12.B1**

Time frame 8-10 weeks

### B. Student Outcomes:

The student will be able to the best of his/her ability:

- I. Learn the terms used in the study of ceramics.
2. Make a ceramic piece that exemplifies the pinch and coil methods of construction.
3. Apply design concepts to the production of ceramics.
4. Acquire workmanship skills and a sense of pride for project.
5. Painting skills when glazing project

### C. Instructional Materials:

Methods and tools that will be utilized in ceramics are:

1. Videos illustrating the proper techniques for wedging and working clay into useful object.
2. Clay, slip.
3. Rolling pin, modeling tools.
4. Assorted scrapers and clay tools.
5. Demonstrate wrapping and storage techniques.
6. Care and use of brushes used for applying glazes.
7. Kiln.

8. Stress safety rules when working with clay.

D. Suggested Activities:

1. Construct chimes or small pots that employ the pinch method and are made to fit the hand.
2. Design a square tile and apply surface textures. This can be used as a trivet.
3. Employ a coil method and create a container for flower arrangements, a mug or a bowl.
4. Glaze the projects in accordance with the accepted glazing techniques.
5. Construct a box from clay that can be used for storage.

E. Methods of Evaluation:

1. Vocabulary Test
2. Class Participation
3. Class Discussions
4. Written Critique

F. Final Assessments:

Coil project and vocabulary quiz.

### **UNIT III: Metals**

#### A. Unit Goals:

1. Gain knowledge and command of definitions and terms used in metals and jewelry process.
2. Learn the skills necessary to work in metal. These include drilling holes, using a jeweler's saw and filing.
3. Acquire sufficient command of tools to permit fabrication of metals to take place.
4. Demonstrate safe working habits, especially in cutting and polishing areas.
5. Illustrate various finishing techniques that include filing and polishing metals.

#### **STANDARDS**

**1.1.12D1-2**

**1.3.12D1,3,4,5**

**1.4.12B.1**

Time frame 8-10 weeks

#### B. Student Outcomes:

1. Have command of the terms used in metals and jewelry.
2. Exhibit fundamental skills in the pierce method.
3. Learn how to operate the jeweler's saw and blade.

#### C. Instructional materials, methods and tools that will be utilized in metal are:

1. Procedures for setting up work and clamping practices for metal.
2. Accepted steps for drilling holes in metal.
3. Polishing techniques that emphasize safety and illustrate various cutting compounds used in polishing metal.
4. Stress design techniques that could easily be applied to metal.
5. Explain and demonstrate the following tools that will be employed in the construction of metal:
  - a. metal shears
  - b. emery paper
  - c. drill press
  - d. jeweler's saw and blade
  - e. art metal hammers and mallets

- f. clamps and bench pin
- g. files
- h. mandrel
- i. Vise
- J. pliers

D. Suggested Activities:

Pierced earrings, ring, bracelet, pendant, pin, or key chain.

E. Methods of Evaluation:

1. Vocabulary Tests
2. Performance test in cutting with the jeweler's saw.
3. Written critique
4. Teacher evaluation of skill techniques exhibited in student work.
5. Evaluation of design concepts in finished metal piece.
6. Class participation.

F. Final Assessments:

Pierced project and vocabulary quiz.

## **UNIT IV: Textiles**

### A. Unit Goals:

1. Learn terms and processes associated with textiles studied.
2. Gain experience in applying design concepts to textiles.
3. Cultivate an appreciation for textiles and their use in today's society.
4. To be exposed to different types of rug making.
5. Learn to appreciate textiles from other cultures.
6. Create a mosaic design

### **STANDARDS**

1.1.12.D.1

1.1.12D.2

1.2.12A.2

1.3.12D3-5

1.4.12.A.1

1.4.12.B1

Time frame: 8-10

### B. Student Outcomes:

The student will be able to the best of his/her ability:

1. Know and understand terminology associated with textile processes covered.
2. Distinguish characteristics of tie-dyeing.
3. Apply color theory concepts that encompass primary, secondary, related and complimentary colors.
4. Recognize color values as they relate to color tints and shades of various hues.
5. To complete a latch-hook project.
6. Create a mosaic design

### C. Instructional materials, methods and tools that will be utilized are:

1. Demonstrate various methods of tying material prior to dye application.
2. Methods of dye application.
3. Videos and samples to illustrate both textile processes being taught.
4. Visual displays.
5. Learn how to use a latch hook and create a design.
6. Create a mosaic using various materials.

