

Grade: 10-12

Course Title: Metal

Topic/Concept: Intro to Tools

Time Allotment: 2 weeks

Unit Sequence: 1

Major Concepts to be learned:

- How to use each metal working tool and learning their names
- How to cut the metal, sand and file it properly
- Tool care, work area set up and safety

Expected Skills to be demonstrated:

- Using tools correctly and accurately
- Cutting, filing, sanding the metal neatly and efficiently

PA Standards/Anchors:

Eligible Content:

9.1.12 A, B, C, D, E, F, H
9.3.12 A, D
9.4.12 A

N/A

Instructional Strategies:

- Lecture
- Group discussion
- Performance task
- Instructional videos

Assessments:

- Written evaluation
- Evaluation of craftsmanship and neatness of practice piece
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Grade:10-12

Course Title: Metal

Topic/Concept: Repousse

Time Allotment: 2 weeks

Unit Sequence: 2

Major Concepts to be learned:

- The history of metal arts
- Review of Elements and Principles of Design
- History of repousse in metal arts
- How to create an interesting repousse piece

Expected Skills to be demonstrated:

- Successful designing process using the E&Pod
- Building on previous knowledge
- Using all tools properly and effiecently to create a repousse

PA Standards/Anchors:

Eligible Content:

9.1.12 A, B, C, D, E, H, K
9.2.12 A, D, E, K, L
9.3.12 C

N/A

Instructional Strategies:

Assessments:

- Problem solving activities
- Lecture
- Group discussion
- Performance task
- Hands-on activity
- Differentiated instruction
- Small group and individual instruction

- Planning of the project
- Fulfilling project requirements
- Time management
- Craftmanship and neatness
- Self-assessment and project reflection questions

Grade: 10-12

Course Title: Metal

Topic/Concept: Texture Earrings

Time Allotment: 2 weeks

Unit Sequence: 3

Major Concepts to be learned:

- Various texture applications of metal
- Creating two of the same or mirrored pieces, in size and design
- Making fishhook backers for earrings and jump rings.

Expected Skills to be demonstrated:

- Creating a successful pair of earrings that are almost the same size and details
- Fishhooks are small, useable and attached correctly with jump rings.
- How to apply texture in various ways

PA Standards/Anchors:

Eligible Content:

9.1.12 A, B, C, D, G, H, J, K
9.2.12 A, B, C, L
9.3.12 D
9.4.12 A, B

N/A

Instructional Strategies:

Assessments:

- Problem solving activities
- Lecture
- Group discussion
- Performance task
- Hands-on activity
- Differentiated instruction
- Small group and individual instruction

- Planning of the project
- Fulfilling project requirements
- Time management
- Craftmanship and neatness
- Self-assessment and project reflection questions

Grade: 10-12

Course Title: Metal

Topic/Concept: +/- Space Pendants

Time Allotment: 3 weeks

Unit Sequence: 4

Major Concepts to be learned:

- How to cut metal to a specific design
- How to cut out negative space in metal

Expected Skills to be demonstrated:

- Cutting metal neatly and accurately
- Using the saw correctly to cut negative space
- Filing and sanding appropriately

PA Standards/Anchors:

Eligible Content:

9.1.12 A, B, C, D, E, F, G, H, J, K
9.4.12 A, B

N/A

Instructional Strategies:

Assessments:

- Problem solving activities
- Lecture
- Group discussion
- Performance task
- Hands-on activity
- Differentiated instruction
- Small group and individual instruction

- Planning of the project
- Fulfilling project requirements
- Time management
- Craftmanship and neatness
- Self-assessment and project reflection questions
- Completion of idea file

Grade: 10-12

Course Title: Metal

Topic/Concept: Soldered Ring

Time Allotment: 4 weeks

Unit Sequence: 5

Major Concepts to be learned:

- Soldering safety and basics
- Proper measuring to create a wearable ring
- Soldering a butt joint with filing for proper fitting
- Cleaning and using a dremmel to sand a completed ring

Expected Skills to be demonstrated:

- Successful designing process for an interesting but simplistic ring
- Successfully and safely soldering a butt joint on the piece of gum, then the ring, seamless due to proper fitting using filing and sanding
- Correctly measuring and cutting the metal to be the desired ring size
- Finishing with proper cleaning and sanding

PA Standards/Anchors:

Eligible Content:

9.1.12 A, B, C, D, E, H, K
9.2.12 A, D, E, K, L
9.3.12 C

N/A

Instructional Strategies:

Assessments:

- Problem solving activities
- Lecture
- Group discussion
- Performance task
- Hands-on activity
- Differentiated instruction
- Small group and individual instruction

- Planning of the project
- Fulfilling project requirements
- Time management
- Craftmanship and neatness
- Self-assessment and project reflection questions

Grade: 10-12

Course Title: Metal

Topic/Concept: Sweat Soldered Cuff Bracelet

Time Allotment: 4 weeks

Unit Sequence: 6

Major Concepts to be learned:

- Creating a cohesive themed design
- Measuring and correct cutting, sanding and filing for a comfortable fitting bracelet
- Sweat soldering basics
- Patina options and results in metal

Expected Skills to be demonstrated:

- Showing a cohesive themed design with three elements soldered onto the cuff
- Accurately measure, cut and sand/file metal to create a wearable bracelet
- Accurately soldering for all pieces to stay on and together when bending the cuff
- Apply extra design elements such as texture and patina if time allows

PA Standards/Anchors:

Eligible Content:

9.1.12 A, B, C, D, G, H, J, K
9.2.12 A, B, C, L
9.3.12 D
9.4.12 A, B

N/A

Instructional Strategies:

Assessments:

- Problem solving activities
- Lecture
- Group discussion
- Performance task
- Hands-on activity
- Differentiated instruction
- Small group and individual instruction

- Planning of the project
- Fulfilling project requirements
- Time management
- Craftmanship and neatness
- Self-assessment and project reflection questions