Portraits are paintings, drawings, photographs, or engravings of a person, especially one depicting only the face or head and shoulders.

Silhouettes are the dark shape and outline of someone or something visible against a lighter background, especially in dim light.

Engraving is the process or art of cutting or carving a design on a hard surface, especially so as to make a print.

Puzzles involve requiring to put pieces together in a logical way, in order to arrive at the correct solution of the image.

**STEP ONE: PHOTOGRAPH** yourself in profile for your Portrait Silhouette Laser Engraving Puzzle Project.

**STEP TWO: DESIGN** your individual puzzle pieces incorporating your name ensure the letters of your name are interconnected like a puzzle. Consider: Line, shape and pattern (interconnected puzzle pieces) Make sure your outline has a solid line throughout for scanning into the computer.

**STEP THREE: EDIT** your work in Adobe Photoshop and Illustrator. Trace Outline to vector based format for laser engraving on cardboard.

**STEP FOUR: SAVE** your image and then Select->Print to the laser engraver on cardboard.

**STEP FIVE: COLOUR** your laser engraved puzzle object with paint or pencil crayons. (optional)

**STEP SEVEN:** Answer the following reflective questions, when you hand in your finished work.

1. What part of your finished work did you find most successful and why?

2. What part of your finished work did you find least successful and why?

3. If you had to do this work again, what part would you change or improve and why?
### Portrait Silhouette Laser Engraving Puzzle Project

<table>
<thead>
<tr>
<th>Achievement Criteria</th>
<th>Level 0</th>
<th>Level 1</th>
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<tbody>
<tr>
<td><strong>Thinking/Inquiry</strong></td>
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<td>Concept &amp; Meaning:</td>
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<tr>
<td>Portrait Silhouette Laser Engraving Puzzle Project</td>
<td>Work does not meet assignment expectations for this category of assessment. Incomplete.</td>
<td>0</td>
<td>0.5</td>
<td>1.0-1.75</td>
<td>10</td>
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<tr>
<td><strong>Knowledge/Understanding</strong></td>
<td>Student demonstrates some understanding of the elements &amp; principles of design in the Portrait Silhouette Laser Engraving Puzzle</td>
<td>Student demonstrates limited understanding of the elements &amp; principles of design in the Portrait Silhouette Laser Engraving Puzzle</td>
<td>Student demonstrates considerable understanding of the elements &amp; principles of design in the Portrait Silhouette Laser Engraving Puzzle</td>
<td>Student demonstrates a high degree of understanding of the elements &amp; principles of design in the Portrait Silhouette Laser Engraving Puzzle</td>
<td>/5</td>
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<tr>
<td><strong>Application/Creation</strong></td>
<td>Work does not meet assignment expectations for this category of assessment. Incomplete.</td>
<td>Student demonstrates limited effectiveness in demonstrating the creative process and following procedures. 5</td>
<td>Student demonstrates some effectiveness in demonstrating the creative process and following procedures. 5-6</td>
<td>Student demonstrates considerable effectiveness in demonstrating the creative process and following procedures. 7-8</td>
<td>/10</td>
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<tr>
<td><strong>Reflective Questions</strong></td>
<td>Incomplete. 0</td>
<td>Answers are vague/incomplete. 0.5</td>
<td>Answers are somewhat clear and complete. 0.5 - 1.0</td>
<td>Answers are clear and complete. 1.0 - 1.75</td>
<td>/20</td>
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### Notes
- **A1. The Creative Process:** apply the creative process to create a variety of art works, individually and/or collaboratively;
- **A1.1** use a variety of strategies, individually and/or collaboratively, to generate ideas and to develop plans for the creation of art works (e.g., in small groups, use brainstorming, research, concept webs, and/or mind maps to generate original and imaginative ideas; filter their ideas to select a suitable one to serve as the basis for their art work; use notes and/or thumbnail sketches to help them develop clear and flexible plans that show attention to detail; revise their plans on the basis of peer- and self-assessment);
- **A1.2** use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media (e.g., experiment with a variety of materials/media, techniques, and tools to find ones that are appropriate for their planned art work; reflect on their preliminary work and on feedback from their peers before revising their art work);
- **A1.3** document their use of the creative process in a portfolio (e.g., include evidence of their conceptual, creative, and technical skills; include thumbnail sketches, checklists, and/or graphic organizers to show evidence of experimentation, reflection, and revision), and refer to this portfolio to reflect on how effectively they have used the creative process;
- **A2. The Elements and Principles of Design:** apply elements and principles of design to create artworks for the purpose of self-expression and to communicate ideas, information, and/or messages;
- **A2.1** use various elements and principles of design to create art works that express personal feelings and/or communicate emotions to an audience (e.g., create a mixed-media self-portrait that uses colour, line, and shape in the style of Frida Kahlo to convey their personality and elicit emotions from the audience);
- **A2.2** apply elements and principles of design as well as art-making conventions to create art works that convey ideas, information, or messages, and/or that convey a point of view on an issue (e.g., use colour, line, shape, contrast, and emphasis when creating a graffiti piece that addresses an issue in their local community; incorporate symbolism to communicate a message about an environmental issue);
- **A3. Production and Presentation:** produce art works, using a variety of media/materials and traditional and/or emerging technologies, tools, and techniques, and demonstrate an understanding of a variety of ways of presenting their works and the works of others;
- **3.1** explore and experiment with a variety of materials/media, including alternative media, and traditional and/or emerging technologies, tools, and techniques, and apply them to create art works;
- **B1. The Critical Analysis Process:** demonstrate an understanding of the critical analysis process by examining, interpreting, evaluating, and reflecting on various art works;
- **B1.1** identify and describe their initial reactions to a variety of art works, and explain the reasons for their reactions (e.g., the aspects of the work and/or their personal experiences that contributed to their first impressions of its mood, subject, intent);
- **B1.2** identify and describe the elements and principles of design used in their own art works and the works of others, and describe their effects (e.g., how line, colour, and shape are used to create emphasis, mood, and/or movement);
- **B1.4** use a variety of strategies (e.g., peer- and self-assessment, formal critiques, feedback and reflection following public displays) to identify and reflect on the qualities of their own art works and the works of others, and evaluate the effectiveness of these works;
C1. Terminology: demonstrate an understanding of, and use correct terminology when referring to, elements, principles, and other components related to visual arts;
   C1.1 use appropriate terminology related to elements and principles of design when creating and analysing art works
   C1.2 use appropriate vocabulary to describe techniques, materials, and tools when creating and presenting visual art works
   C1.3 identify and describe the stages of the creative process and the critical analysis process (e.g., how reflection relates to the other stages of the creative process)

C2. Conventions and Techniques: demonstrate an understanding of conventions and techniques used in the creation of visual art works;
   C2.1 demonstrate an understanding of a variety of techniques that artists use to achieve specific effects
   C2.2 demonstrate an understanding of several conventions used in visual art works (e.g., exaggeration, metaphor, simile, symbols, synectics; conventions associated with heroic, narrative, naturalistic, and satirical works)

C3. Responsible Practices: demonstrate an understanding of responsible practices in visual arts.
   C3.2 demonstrate an understanding of safe and conscientious practices associated with the use of materials, tools, and technologies in visual arts, and apply these practices when creating and/or presenting art works (e.g., use appropriate precautions when dealing with hazardous materials; adopt protective measures when using sharp tools; keep their work space clean and free of physical and other hazards; demonstrate respect for classroom facilities, tools, equipment, and technological devices)