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| <b>Planned Course: Imagineering Workshop</b>         |   | <b>Course Number: AH844T</b>  | <b>Department: Fine &amp; Digital Arts</b>    |
| <b>Unit: 2: Generating, Proposing &amp; Refining</b> |   | <b>Grade Level: 9-12</b>  |   |
| <b>Estimated Time: 3 weeks</b>                       |   | <b>Level/Track: Elective</b>  | <b>Date Approved: August 27, 2018</b>         |
| <b>PA Academic Standards</b>                         | <ul style="list-style-type: none"> <li>▶ <b>Core Concepts (in question format)</b> <ul style="list-style-type: none"> <li>• Skills/Knowledge</li> </ul> </li> </ul> | <b>Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)</b> | <b>Assessments (include types and topics)</b> |

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| <p><b>3.1.12. A: Apply concepts of systems, subsystems, feedback and control to solve complex technological problems.</b></p> <ul style="list-style-type: none"> <li>• Apply knowledge of control systems concept by designing and modeling control systems that solve specific problems.</li> <li>• Apply systems analysis to predict results.</li> <li>• Compare and contrast several systems that could be applied to solve a single problem.</li> </ul> <p><b>3.1.12. C: Assess and apply patterns in science and technology.</b></p> <ul style="list-style-type: none"> <li>• Assess and apply recurring patterns in natural and technological systems.</li> </ul> <p><b>3.1.12. E: Evaluate change in nature, physical systems and man-made systems.</b></p> <ul style="list-style-type: none"> <li>• Evaluate the patterns of change within a technology (e.g., changes in engineering).</li> </ul> <p><b>3.2.12. C: Apply the elements of scientific inquiry to solve multi-step problems.</b></p> <ul style="list-style-type: none"> <li>• Generate questions about objects, organisms and/or events that can be answered through scientific investigations.</li> <li>• Evaluate the appropriateness of questions.</li> <li>• Design an investigation with</li> </ul> | <ul style="list-style-type: none"> <li>▶ Is there such a thing as a “good” or “bad” idea?</li> <li>▶ Does your background/age influence the choices you make when coming up with project ideas? <ul style="list-style-type: none"> <li>• Changing Interests</li> <li>• Life Experiences</li> </ul> </li> <li>▶ How/Why will learning how to independently create/find solutions and propose solutions to problems help you in the future? <ul style="list-style-type: none"> <li>• Understanding the benefits of Trial and Error</li> <li>• Practice</li> <li>• Following Specifications/Requirements</li> <li>• Teamwork</li> </ul> </li> <li>▶ How far do you go when refining ideas based upon the client/someone else’s comments? <ul style="list-style-type: none"> <li>• Integrity of original design</li> <li>• Clarity</li> <li>• Creativity</li> <li>• Structural Design Integrity</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Utilizing the methods learned in Unit 1: Enhancing Personal Creativity, students will generate a variety of topic ideas for further study.</li> <li>• Students will analyze and complete preliminary research (as necessary) on a few of the ideas they come up with to better zero in on a single problem that they want to tackle.</li> <li>• Students will research and identify and analyze any current solutions available.</li> <li>• Students will brainstorm ideas in “spiderweb” or “mindmap” diagram and/or list form to generate a more specific starting point that will lead to a unique (if required) solution of their own.</li> <li>• Students will pick ideas that interest them and work on a small portfolio of thumbnail sketches that convey their solutions (in pencil on</li> </ul> | <ul style="list-style-type: none"> <li>• On an individual basis both informal (ongoing) and formal (for points) assessments will be applied via rubric for the collection and organization and placement of information (written info, sketches, relevant links, color/mood boards, photos, videos, reflections etc.) related to any given project in a digital Learning Journal.</li> <li>• Students will be informally assessed on all proposal forms submitted. Approvals/denials and comments will be returned to the student for further discussion/adjustments as needed. Approvals are required to move further along the project creation path.</li> </ul> |
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| adequate control and limited variables to investigate a question.<br><br><b>3.2.12. D: Analyze and use the technological design process to solve problems.</b><br>• Assess all aspects of the problem, prioritize the necessary information and formulate questions that must Be answered.<br>• Propose, develop and appraise the best solution and develop Alternative solutions. |  | newsprint).<br><br>• When students have a solid idea, they will submit a formal proposal to the teacher for approval utilizing the formal proposal form required. |  |
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