

## Subject: ADST Grade Level: 4 – 5

Big Idea	Dates	Competencies / Content	Teaching Strategies	Material & resources	Assessment Plan
Designs can be improved with prototyping and testing. Skills can be developed through practice, effort and action. The choice of technology and tools depends on the task.	Term 1	<ul> <li>Understanding Context</li> <li>Gather information about or from potential users.</li> <li>Ideating: <ul> <li>Generate potential ideas and add to others ideas.</li> </ul> </li> <li>Screen ideas against the objective and constraints.</li> <li>Choose an idea to pursue.</li> </ul>	<ul> <li>Applied skills</li> <li>Use materials, tools, and technologies in a safe manner in both physical and digital environments.</li> <li>Identify the skills required for a task and develop those skills as needed.</li> <li>Applied technologies:</li> <li>Use familiar tools and technologies to extend their capabilities when completing a task.</li> <li>Choose appropriate technologies to use for specific task.</li> <li>Demonstrate willingness to learn new technologies as needed.</li> </ul>	Computer lab Science kits Chrome books Recycled materials	Observation Class assignments Admit/Exit slip project
Designs grows out of natural curiosity Skills can be developed through play. Technologies are tool that extend human capabilities.	Term 2	<ul> <li>Ideating:</li> <li>Generate potential ideas and add to others ideas.</li> <li>Screen ideas against the objective and constraints.</li> <li>Choose an idea to pursue.</li> <li>Prototyping:</li> <li>Outline a general plan, identifying tools and materials.</li> <li>Construct a first version of the product, making changes to tools, materials and procedures as needed.</li> <li>Testing:</li> <li>Test the product</li> <li>Gather peer feedback and inspiration.</li> </ul>	<ul> <li>Applied skills</li> <li>Use materials, tools, and technologies in a safe manner in both physical and digital environments.</li> <li>Identify the skills required for a task and develop those skills as needed.</li> <li>Applied technologies:</li> <li>Use familiar tools and technologies to extend their capabilities when completing a task.</li> <li>Choose appropriate technologies to use for specific task.</li> <li>Demonstrate willingness to learn new technologies as needed.</li> </ul>	Computer lab Science kits Chrome books Recycled materials	Observation Class assignments Admit/Exit slip project

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		Make changes and test again, repeating until satisfied with the product.			
Designs grows out of natural curiosity Skills can be developed through play. Technologies are tool that extend human capabilities.	Term 3	<ul> <li>Ideating:</li> <li>Generate potential ideas and add to others ideas.</li> <li>Screen ideas against the objective and constraints.</li> <li>Choose an idea to pursue.</li> <li>Making:</li> <li>Construct the final product, incorporating planned changes.</li> <li>Sharing</li> <li>Decide on how and with whom to share their product</li> <li>Demonstrate their product and describe their process</li> <li>Determine whether their product meets the objective and contributes to the individual, family, community, and/or environment.</li> <li>Reflect on their design thinking and processes and their ability to work effectively both as individuals and collaboratively in a group, including their ability to share and maintain a cooperative work space.</li> <li>Identify new design issues.</li> </ul>	<ul> <li>Applied skills</li> <li>Use materials, tools, and technologies in a safe manner in both physical and digital environments.</li> <li>Identify the skills required for a task and develop those skills as needed.</li> <li>Applied technologies:</li> <li>Use familiar tools and technologies to extend their capabilities when completing a task.</li> <li>Choose appropriate technologies to use for specific task.</li> <li>Demonstrate willingness to learn new technologies as needed.</li> </ul>	Computer lab Science kits Chrome books Recycled materials	Observation Class assignments Admit/Exit slip project