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| **APPLIED DESIGN, SKILLS and TECHNOLOGIES 4 - Planning KDU** |
| **CORE COMPETENCIES** **COMMUNICATION**  | **CORE COMPETENCIES** **THINKING (CRITICAL/CREATIVE)** | **CORE COMPETENCIES****(PERSONAL/SOCIAL)** |
| **CURRICULAR COMPETENCIES** | **BIG IDEA (Understand…)** | **What do we want students to DO?****(Activities, lessons…)**  | **Content (& Elaborations)****(Know)** |
| **Applied Design*****Understanding context**** Gather information about or from potential users *(self, peers, younger children, family or community members, customers, plants, or animals)*

***Defining*** * Choose a design opportunity
* Identify key features or user requirements
* Identify the main objective for design and any constraints *(limiting factors such as task or user requirements, materials, expense, environmental impact, issues of appropriation, and knowledge that is considered sacred)*

***Ideating*** *(forming ideas or concepts)** Generate potential ideas and add to others’ ideas
* Screen ideas against the objective and constraints
* Choose an idea to pursue

***Prototyping**** Outline a general plan, identifying tools and materials
* Construct a first version of the product *(a physical product, a process, a system, a service, or a designed environment),* making changes to tools, materials, and procedures as needed
* Record iterations *(repetitions of a process with the aim of approaching a desired result)* of prototyping

***Testing**** Test the product
* Gather peer feedback and inspiration
* Make changes and test again, repeating until satisfied with the product

***Making**** Construct the final product, incorporating planned changes

***Sharing**** Decide on how and with whom to share *(may include showing to others, use by others, giving away, or marketing and selling)* their product
* Demonstrate their product
* Explain their process
* Reflect on their design thinking and processes
* Determine whether their product met the objective
* Identify new design issues
* Identify how their product contributes to the individual, family, community, and/or environment
* Reflect on their ability to work effectively both as individuals and collaboratively in a group, including their ability to share and maintain a co-operative work space

**Applied Skills*** Use materials, tools, and technologies *(things that extend human capabilities)* in a safe manner, and with an awareness of the safety of others, in both physical and digital environments
* Identify the skills required for a task and develop those skills as needed

**Applied Technologies*** Use familiar tools and technologies to extend their capabilities when completing a task
* Choose appropriate technologies to use for specific tasks
* Demonstrate a willingness to learn about new technologies as needed
 | Designs can be improved with prototyping and testing.Skills are developed through practice, effort, and action. The choice of technology and tools depends on the task. | *Questions to support inquiry with students:* * What makes good design?
* How does design change with availability of different materials?

  | *Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies 4-5 in combination with grade-level content from other areas of learning in cross-curricular activities to develop foundational mindsets and skills in design thinking and making.* |
| **Evidence of Experience (Show)** |
| **BIG IDEA (Understand…)** | **What do we want students to DO?****(Activities, lessons…)**  | **Content (& Elaborations)****(Know)** |
|  | *Questions to support inquiry with students:*  |  |
| **Evidence of Experience (Show)** |