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| **APPLIED DESIGN, SKILLS and TECHNOLOGIES 5 - 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*** *(setting parameters)*   * 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 * 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)** | | | | |