

BIG IDEAS

Designs grow out of natural curiosity.

Skills can be developed through play.

Technologies are tools that extend human capabilities.

Learning Standards

| Curricular Competencies | Content |
|---|--|
| <p><i>Students are expected to be able to do the following:</i></p> <p>Applied Design</p> <p>Ideating</p> <ul style="list-style-type: none"> • Identify needs and opportunities for designing, through exploration • Generate ideas from their experiences and interests • Add to others' ideas • Choose an idea to pursue <p>Making</p> <ul style="list-style-type: none"> • Choose tools and materials • Make a product using known procedures or through modelling of others • Use trial and error to make changes, solve problems, or incorporate new ideas from self or others <p>Sharing</p> <ul style="list-style-type: none"> • Decide on how and with whom to share their product • Demonstrate their product, tell the story of designing and making their product, and explain how their product contributes to the individual, family, community, and/or environment • Use personal preferences to evaluate the success of their design solutions • Reflect on their ability to work effectively both as individuals and collaboratively in a group <p>Applied Skills</p> <ul style="list-style-type: none"> • Use materials, tools, and technologies in a safe manner in both physical and digital environments • Develop their skills and add new ones through play and collaborative work <p>Applied Technologies</p> <ul style="list-style-type: none"> • Explore the use of simple, available tools and technologies to extend their capabilities | <p><i>Students are expected to use the learning standards for Curricular Competencies from Applied Design, Skills, and Technologies K–3 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.</i></p> |

BIG IDEAS

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.

Learning Standards

| Curricular Competencies | Content |
|---|--|
| <p><i>Students are expected to be able to do the following:</i></p> <p>Applied Design</p> <p><i>Understanding context</i></p> <ul style="list-style-type: none"> • Gather information about or from potential users <p>Defining</p> <ul style="list-style-type: none"> • Choose a design opportunity • Identify key features or user requirements • Identify the main objective for the design and any constraints <p>Ideating</p> <ul style="list-style-type: none"> • Generate potential ideas and add to others' ideas • Screen ideas against the objective and constraints • Choose an idea to pursue <p>Prototyping</p> <ul style="list-style-type: none"> • Outline a general plan, identifying tools and materials • Construct a first version of the product, making changes to tools, materials, and procedures as needed • Record iterations of prototyping <p>Testing</p> <ul style="list-style-type: none"> • Test the product • Gather peer feedback and inspiration • Make changes and test again, repeating until satisfied with the product | <p><i>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.</i></p> |

Learning Standards (continued)

| Curricular Competencies | Content |
|---|---------|
| <p><i>Making</i></p> <ul style="list-style-type: none"> • Construct the final product, incorporating planned changes <p><i>Sharing</i></p> <ul style="list-style-type: none"> • Decide on how and with whom to share their product • Demonstrate their product and describe their process • Determine whether their product meets the objective and contributes to the individual, family, community, and/or environment • 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 co-operative work space • Identify new design issues <p>Applied Skills</p> <ul style="list-style-type: none"> • Use materials, tools, and technologies 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 <p>Applied Technologies</p> <ul style="list-style-type: none"> • 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 new technologies as needed | |